

EXHIBIT 6

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Page 1

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3 SAN FRANCISCO DIVISION
4 ORACLE AMERICA, INC.,
5 Plaintiff,
6 vs. Case No. 3:10-cv-03561-WHA
7 GOOGLE, INC.,
8 Defendant.

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14 PURSUANT TO THE PROTECTIVE ORDER
15 VIDEO DEPOSITION OF JAMES MALACKOWSKI
16 San Francisco, California
17 Wednesday, March 17, 2016
18 Volume I

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21
22 REPORTED BY:
23 REBECCA L. ROMANO, RPR, CSR No. 12546
24 JOB NO. 2265299
25 PAGES 1 - 385

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<p>1 JAMES MALACKOWSKI, 2 having been administered an oath, was examined and 3 testified as follows:</p> <p>4</p> <p>5 EXAMINATION</p> <p>6 BY MR. PURCELL:</p> <p>7 Q. Good morning, Mr. Malackowski.</p> <p>8 A. Good morning, sir.</p> <p>9 Q. You are Oracle's expert on copyright 10 damages in this case, correct?</p> <p>11 A. I think, generally speaking, that's fair. 12 Obviously, I produced two reports that explain in 13 detail the scope of my expert opinion.</p> <p>14 Q. And we'll be getting into those later.</p> <p>15 But generally speaking, you are offering 16 a damages calculation in this case regarding 17 Google's alleged wrongful profits attributable to 18 the infringement, correct?</p> <p>19 A. That's within my opinions. My opinions 20 are broader than that, including, for 21 example, lost profit opinions.</p> <p>22 But generally speaking, that's true.</p> <p>23 Q. Well, that was my next question.</p> <p>24 You're also offering a damages opinion 25 regarding Oracle's alleged lost profits, correct?</p>	<p>Page 10</p> <p>1 Q. What information would you need to make 2 that computation?</p> <p>3 A. Well, ideally, I would see market-based 4 transactions that include parameters that are 5 similar to the taking in this case, in particular, 6 market-based transactions that do not have the 7 control and security elements that are implicit 8 with the contemporaneous agreements that I did 9 find.</p> <p>10 Q. So can you give me an example of a 11 market-based transaction including a similar 12 parameter that you would want to look at in making 13 a hypothetical license determination?</p> <p>14 A. Well, I can't give you an example in 15 response to your question, because there is no such 16 thing in my understanding.</p> <p>17 But, hypothetically, an example would be 18 a license similar to the taking that is asserted 19 here, which would include rights to the APIs at 20 issue without the required control and security 21 elements that were important to Sun.</p> <p>22 Q. So you would be looking for a comparable 23 license to the APIs at issue here without the 24 control and security measures that you identified; 25 is that right?</p>
<p>1 A. Again, included within my offered 2 reports, that's also one of the opinions.</p> <p>3 Q. And another one of the opinions in your 4 report is a calculation of Oracle's statutory 5 damages, correct?</p> <p>6 A. Yes, sir.</p> <p>7 Q. You are not offering any opinion on the 8 value of a hypothetical license to Oracle, correct?</p> <p>9 A. Not explicitly. So I have not reached a 10 conclusion as to what a hypothetical or a 11 constructive license would be.</p> <p>12 Q. You haven't offered any calculation as to 13 the value of a hypothetical license to Oracle for 14 the intellectual property at issue here, correct?</p> <p>15 A. Well, the notion of value may be more 16 expansive in your question than I'm thinking. But 17 I have not offered an opinion as to what the result 18 of a constructive license would be.</p> <p>19 Q. Is there some reason why you didn't 20 calculate that measure of actual damages for 21 copyright infringement here?</p> <p>22 A. Yes. That's a measure that I considered. 23 But I didn't believe that the information that was 24 available to me was sufficient to allow me to make 25 that computation.</p>	<p>Page 11</p> <p>1 A. Generally speaking, that's true. There 2 would be a number of other considerations that 3 would ultimately determine if you could find 4 something that was comparable, for example, the 5 scope of the taking, the benefits realized.</p> <p>6 But at a high level, my -- I did 7 investigate the issue that you raise. And my 8 conclusion was that the data was not sufficient.</p> <p>9 Q. Mr. Malackowski, how many times have you 10 offered an opinion regarding damages in litigation 11 matters? Just roughly.</p> <p>12 A. The definition of opinions is a little 13 nebulous, and I don't mean to mince words.</p> <p>14 So I have testified in court on matters 15 related to that approximately 50 times. I have 16 provided deposition testimony two or three times 17 that amount.</p> <p>18 And then there would be a large number of 19 reports where I have issued an opinion, but there 20 was no testimony.</p> <p>21 Q. All right. So roughly 50 instances of 22 testimony in court you said; is that right?</p> <p>23 A. And/or arbitration proceedings, yes.</p> <p>24 Q. And then 100 to 150 instances of 25 testimony at deposition?</p>

4 (Pages 10 - 13)

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<p style="text-align: right;">Page 62</p> <p>1 technical experts who address that issue.</p> <p>2 But generally speaking, the stability of</p> <p>3 program, which means they are -- they are not</p> <p>4 changing over time, allows programmers, A, to have</p> <p>5 greater confidence and familiarity with them, and</p> <p>6 not have to go back and do rework or change any of</p> <p>7 their analysis because of the instability.</p> <p>8 I believe that's discussed in some great</p> <p>9 length within the technical reports.</p> <p>10 Q. And that's Dr. Kemerer's report, correct,</p> <p>11 that performs the stability analysis?</p> <p>12 A. I believe it is, yes, sir.</p> <p>13 Q. Did you conduct any particular analysis</p> <p>14 yourself regarding the stability of the APIs?</p> <p>15 A. Well, not at a level of specificity as</p> <p>16 Dr. Kemerer did. I think that the concept of</p> <p>17 robustness and stability is clearly described</p> <p>18 qualitatively within the business records, in</p> <p>19 particular, the business records of Google when</p> <p>20 they describe the importance of access to the Java</p> <p>21 language for the Android platform.</p> <p>22 I believe these considerations are part</p> <p>23 of those descriptions.</p> <p>24 Q. You didn't assist Dr. Kemerer with his</p> <p>25 stability analysis, correct?</p>	<p style="text-align: right;">Page 64</p> <p>1 A. Do I have a lay understanding of that</p> <p>2 distinction? Yes.</p> <p>3 Do I have a distinction in mind with</p> <p>4 respect to Dr. Kemerer's analysis of stability?</p> <p>5 No.</p> <p>6 Q. What's your lay understanding?</p> <p>7 A. Well, my lay understanding that the</p> <p>8 declaring code, which is largely what's at issue in</p> <p>9 this case, is what allows app developers or other</p> <p>10 developers to efficiently create programs knowing</p> <p>11 that there will be implementation code beneath the</p> <p>12 SSO and declaring code, of which they not need be</p> <p>13 particularly familiar with, relying upon the fact</p> <p>14 that the declaring code will trigger sufficient</p> <p>15 implementation for their needs.</p> <p>16 Q. You realize that the implementing code in</p> <p>17 this case is not accused, correct? True?</p> <p>18 A. Of course.</p> <p>19 Q. So do you know whether Dr. Kemerer's</p> <p>20 stability analysis was limited to the declaring</p> <p>21 code, or do you know whether it also looked at</p> <p>22 implementing code?</p> <p>23 A. I understand that to be the same question</p> <p>24 you asked me a moment ago. And I don't have a</p> <p>25 further description for you.</p>
<p style="text-align: right;">Page 63</p> <p>1 A. Correct.</p> <p>2 Q. You relied entirely on his independent</p> <p>3 work on the stability analysis?</p> <p>4 A. Certainly I relied upon his work for his</p> <p>5 conclusions which I cite, yes, sir.</p> <p>6 Q. And what, if any, conclusions do you --</p> <p>7 strike that.</p> <p>8 How did Dr. Kemerer measure stability?</p> <p>9 Do you know that, as you sit here?</p> <p>10 A. I believe he looked to revisions over</p> <p>11 time between the Java 37 APIs at issue and other</p> <p>12 code. But I defer to his analysis.</p> <p>13 I think that's a question of methodology</p> <p>14 best for him.</p> <p>15 Q. Do you know if he was looking at changes</p> <p>16 to the structure sequence and organization and</p> <p>17 declaring code within APIs, or do you know if he</p> <p>18 was looking at changes to the implementing code</p> <p>19 within APIs?</p> <p>20 A. I don't recall that level of detail from</p> <p>21 memory. I would have to go back to Dr. Kemerer's</p> <p>22 report.</p> <p>23 Q. Do you have a distinction in mind between</p> <p>24 declaring code, on the one hand, and implementing</p> <p>25 code, on the other?</p>	<p style="text-align: right;">Page 65</p> <p>1 I would have to go back to Dr. Kemerer's</p> <p>2 report. That's a level of analysis that's outside</p> <p>3 my scope.</p> <p>4 Q. Wouldn't the appropriate analysis for</p> <p>5 Dr. Kemerer to conduct be of the declaring code and</p> <p>6 not the implementing code?</p> <p>7 A. I don't have an opinion. I think that's</p> <p>8 a better question for Dr. Kemerer.</p> <p>9 Q. Is it always a good thing when an API</p> <p>10 doesn't change over time?</p> <p>11 A. Is it always a good thing?</p> <p>12 I think in industries of this type it's</p> <p>13 probably never fair to say always or never.</p> <p>14 But generally speaking, based upon my</p> <p>15 investigation, there clearly are advantages to</p> <p>16 stability, as described in Dr. Kemerer's report.</p> <p>17 Q. Other than what's in Dr. Kemerer's</p> <p>18 report, do you have any independent conclusions</p> <p>19 about the advantages of stability to API code?</p> <p>20 A. Well, from a business perspective, as</p> <p>21 noted a moment ago, I believe within the record of</p> <p>22 this case is confirmation that from Google's</p> <p>23 perspective, there was a value in the stability of</p> <p>24 the code in that it allowed more efficient access</p> <p>25 to the API developers.</p>

17 (Pages 62 - 65)

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<p>1 code of 37 API packages as -- as of the time 2 Mr. Lindholm wrote that email? 3 A. I do not believe at that level of detail 4 at that time. I think it was a more general 5 discussion.</p> <p>6 Q. Do you know if the general discussion 7 involved anything related to copyright protection 8 for APIs?</p> <p>9 A. Again, I think it related to the 10 technology generally, which in my view would 11 include the patents, the copyrights, what was 12 generally available.</p> <p>13 Q. So in your view, if Oracle raises a 14 question about the technology generally, then 15 Mr. Lindholm's email is fairly interpreted as 16 referring specifically to the 37 API packages, the 17 declaring code and the SSO?</p> <p>18 A. I -- I -- no. I don't even know why 19 you would draw that conclusion, based upon what I 20 just said a few minutes ago. I think it's more 21 general.</p> <p>22 Q. Mr. Malackowski, getting back to the 23 technical issues, I mentioned our discussion 24 earlier of Dr. Kemerer's stability analysis. I -- 25 I don't want to repeat that, but I want to discuss</p>	<p>Page 90</p> <p>1 taken out of Android, Android wouldn't work, would 2 it? 3 A. I -- I think that's fair. And as I 4 considered this issue, there's a chart that's been 5 used in trial that is sort of a block diagram that 6 sets forth all of the contributions to the Android 7 platform and list the Java technology as part of 8 the core of that diagram. 9 So, yes, there would be other things, but 10 I think what the technical experts have concluded 11 is that, as it relates to Android as developed, the 12 APIs at issue are clearly central and core. They 13 are not trivial. And, as I have concluded, they 14 are a contribution to the profits that were earned. 15 Q. You, in fact, concluded they are a 16 100 percent contribution to the profits that were 17 earned, correct? 18 A. No, not at all. I make substantial 19 apportionment in my analysis to the platform; and 20 then ultimately to a subset of that, based on 21 profitability. 22 Q. Yes, but you assign 100 percent of the 23 contribution of the platform to the 37 APIs, 24 correct? 25 A. Not true. If I were to assign -- if I</p>
<p>Page 91</p> <p>1 some of the other technical issues that you rely on 2 in support of your causal nexus conclusion. One of 3 them is your conclusion that Android would not work 4 if the SSO and declaring code were removed. 5 Is it fair to say, that's an input to 6 your causal nexus analysis? 7 A. I think it is an input, both as described 8 in my report and based upon my experience. In 9 particular, I would reference my experience in the 10 Brocade A10 case, and the language of Judge Grewal 11 in that case, where he specifically cites to the 12 notion, a very equivalent notion, as an indication 13 to consider in a causal nexus -- and, frankly, in 14 reference to my causal nexus -- opinion. 15 Q. Is there any other portion of the Android 16 operating system that if it were removed, the OS 17 would not work? 18 A. Yes. 19 Q. What other portions of Android would 20 disable the system if they were removed? 21 A. That's more of a technical question. I 22 do understand that there would be other portions -- 23 you know, more than one, frankly -- that, if 24 removed, would disable the system. 25 Q. For instance, if the Linux kernel were</p>	<p>Page 93</p> <p>1 were to assign 100 percent of the value of the 2 platform to the APIs, I would simply take the 3 revenue of Google, times 35.6 percent, and stop. 4 That's roughly \$10 billion. I don't do that. 5 The first thing that I do is recognize 6 that there are contributions made, as reflected in 7 cost, to get to gross margin. I then take 8 35.6 percent of the platform gross margin, which 9 leaves 64 percent of all of the benefit to Google 10 directly. 11 And then I make further calculations that 12 take into account the other contributions, and cost 13 and profit related thereto, to reduce my initial 14 8 billion -- or to adjust my original 15 8-billion-dollar number to the ultimate conclusion 16 that I reach. 17 So, no, I don't think it's fair that it 18 was as simple as your question suggested. 19 Q. You said that if you assigned 100 percent 20 of the contribution to the platform, you would end 21 up with a 10-billion-dollar number, right? 22 A. Yes, I would. It would be a fairly 23 simple calculation. 24 Q. And the number you actually end up with 25 is 8.8 billion.</p>

24 (Pages 90 - 93)

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<p style="text-align: right;">Page 94</p> <p>1 A. Correct. But it's not simply fair to 2 imply that that 1.2 billion difference is -- is -- 3 is the only thing that's going on. I'm also taking 4 into account in that difference other elements of 5 contribution that are not associated with the 6 ad revenue. That's in the first part of my 7 calculation, in particular the digital content and 8 applications.</p> <p>9 Q. Once you arrive at the 35.6 percent 10 platform contribution, you don't apportion further, 11 correct?</p> <p>12 A. I am sorry. My last answer I said, 13 digital content and apps also include hardware. So 14 could you repeat your last question, because I was 15 thinking about my prior answer --</p> <p>16 Q. Once you arrive at the 35.6 percent 17 platform contribution, you don't apportion further, 18 correct?</p> <p>19 A. Well, we -- "apportion" is a -- a term of 20 art. I certainly consider further apportionment 21 and conclude that, once I've reduced it to that 22 level, leaving Google with 64 percent of the 23 economic benefit, the commingling that exist as a 24 result of the Google taking is such that I am not 25 able to, and do not believe, it's possible to</p>	<p style="text-align: right;">Page 96</p> <p>1 code establish a causal nexus? 2 A. Well, we have talked about this already 3 at great length, and to sort of recap for you: 4 One, I understand from my experience, 5 including the experience with the Brocade A10 case 6 that I cited for you, that that sort of analysis is 7 applicable to understanding causal nexus 8 explicitly;</p> <p>9 Two, I understand from the technical 10 experts that the APIs at issue in declaring code 11 and SSO are not like everything else, that they, in 12 fact, are relatively more important for the reasons 13 they describe;</p> <p>14 And, third, from a business perspective, 15 my report is replete with extensive discussion of 16 the need for a license to the code at issue -- I'm 17 sorry -- there's extensive discussion in my report 18 discussing the need for the license of what was 19 ultimately taking, because of that unique window of 20 opportunity, competitive threat and lack of 21 alternatives.</p> <p>22 Q. Mr. Malackowski, there's not any 23 discussion in your report of a need for the license 24 taken -- to -- to the material actually taken, the 25 37 APIs, the declaring code and the SSO, is there?</p>
<p style="text-align: right;">Page 95</p> <p>1 apportion further at a revenue level. 2 I understand that ultimately that's 3 Dr. Leonard's obligation, and he's presented no 4 suitable apportionment that would address that. 5 I -- I -- I clearly reject the lines of the code 6 analysis for the reasons we discussed.</p> <p>7 I do, however, take into account further 8 costs, which some cases suggest also are a 9 reflection of apportionment, but I don't take into 10 account a further arithmetic explicit apportionment 11 because of the commingling.</p> <p>12 Q. Getting back to the technical issues, if 13 the Android runtime were removed from Android, 14 Android wouldn't work, correct?</p> <p>15 A. That's a question better for a technical 16 expert. My presumption is that it would not, but I 17 don't have a technical opinion in that regard.</p> <p>18 Q. And if other Android libraries were 19 removed from Android, Android wouldn't work, 20 correct?</p> <p>21 A. Same answer.</p> <p>22 Q. If there are multiple aspects of the 23 Android that, if they were removed, would disable 24 the operating system, how does the fact that 25 Android wouldn't work without the SSO and declaring</p>	<p style="text-align: right;">Page 97</p> <p>1 MS. HURST: Object to the form. 2 THE DEPONENT: Well, there is, in the 3 sense that there is a need, or a recognition by 4 Google of the need for a license and the lack of 5 alternatives. We have discussed at great length 6 that those documents do not specifically call out 7 the words "37, API, declaring code," as I would 8 expect them not to, based upon my experience in 9 matters of this type.</p> <p>10 MS. HURST: Can I just -- I think my 11 LiveNote stopped working, and I just want to 12 inquire.</p> <p>13 MR. PURCELL: Should we go off the 14 record? That's fine.</p> <p>15 THE VIDEOGRAPHER: Going off the record 16 at 10:31 a m.</p> <p>17 (Recess taken.)</p> <p>18 THE VIDEOGRAPHER: Back on the record 19 at 10:32 a m.</p> <p>20 Q. (By Mr. Purcell) Mr. Malackowski, I 21 think you alluded to it in your testimony, and it's 22 mentioned in your report, you also rely on a 23 centrality analysis regarding the SSO and declaring 24 code of the 37 Java SE APIs that was performed by 25 Dr. Kemerer; is that right?</p>

25 (Pages 94 - 97)

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<p style="text-align: right;">Page 138</p> <p>1 Correct?</p> <p>2 A. Yes, sir.</p> <p>3 Q. And with respect to Android hardware</p> <p>4 revenue, your opinion is that all of that revenue</p> <p>5 is -- has a causal nexus to the alleged</p> <p>6 infringement, correct?</p> <p>7 A. Yes, sir.</p> <p>8 Q. And similarly with respect to the Android</p> <p>9 apps revenue, you opine that all of that revenue</p> <p>10 has a causal nexus with the alleged infringement,</p> <p>11 correct?</p> <p>12 A. Yes, sir.</p> <p>13 Q. And the same with the digital content</p> <p>14 revenue, you opine that all of that revenue has a</p> <p>15 causal nexus with the alleged infringement?</p> <p>16 A. Yes, sir. And as it relates to those</p> <p>17 last three, I would just note that Dr. Leonard</p> <p>18 concurs.</p> <p>19 Q. And, finally, with respect to Android ad</p> <p>20 revenue, you conclude that all of Google's</p> <p>21 Android -- strike that.</p> <p>22 You also conclude that all of the revenue</p> <p>23 Google has received from advertising on Android</p> <p>24 devices has causal nexus with the alleged</p> <p>25 infringement, correct?</p>	<p style="text-align: right;">Page 140</p> <p>1 It's my understanding of the case law,</p> <p>2 but I do describe in my report the causal nexus to</p> <p>3 device revenue, citing much of the same categories</p> <p>4 of evidence that we've been talking about.</p> <p>5 Q. Did you do any analysis of the fact --</p> <p>6 the effect of including the SSO and declaring code</p> <p>7 on consumer demand for Google hardware?</p> <p>8 A. I'm not sure I understand your question.</p> <p>9 In the sense that a but-for analysis as</p> <p>10 to what would have been the counterfactual without</p> <p>11 the code?</p> <p>12 Is that your question?</p> <p>13 Q. Let's go with that.</p> <p>14 A. No. I don't believe an assessment of the</p> <p>15 counterfactual is relevant.</p> <p>16 I have considered the fact that the</p> <p>17 devices will not work without the code following</p> <p>18 what I understand to be the case law, and in</p> <p>19 particular my experience with Judge Grewal, and I</p> <p>20 have considered the various business records that</p> <p>21 are cited in the pages of my report.</p> <p>22 Q. Did the presence of the SSO and declaring</p> <p>23 code in the Android hardware increase the sales of</p> <p>24 hardware?</p> <p>25 A. As opposed to a counterfactual, I haven't</p>
<p style="text-align: right;">Page 139</p> <p>1 A. Yes. Though, I ultimately will make an</p> <p>2 apportionment to that revenue. But, yes, I believe</p> <p>3 there is a causal nexus to all of it.</p> <p>4 Q. So just taking them one at a time.</p> <p>5 Again, I think I understand the theory, but I just</p> <p>6 want you to explain it, if you could.</p> <p>7 Why does the Android hardware revenue</p> <p>8 have a causal nexus to the alleged infringement?</p> <p>9 A. Well, I believe that the hardware revenue</p> <p>10 is the most direct in that it's my understanding</p> <p>11 that the copyrights literally exist within the</p> <p>12 hardware, and that that that's sufficient to prove</p> <p>13 nexus for physical devices.</p> <p>14 Q. What's your basis for saying that that's</p> <p>15 sufficient to prove nexus for physical devices?</p> <p>16 A. My experience in cases of this -- similar</p> <p>17 to what we talked about before. My experience</p> <p>18 having worked on cases of this type, my</p> <p>19 understanding of the case law, and confirmation</p> <p>20 with counsel.</p> <p>21 Q. So is that your opinion that that's</p> <p>22 sufficient to prove nexus, or is that your</p> <p>23 underlying of what case law has held, or, I guess,</p> <p>24 some combination of the two?</p> <p>25 A. I would say some combination of the two.</p>	<p style="text-align: right;">Page 141</p> <p>1 studied that analysis. It's not required. It's,</p> <p>2 in fact, more than not required, it's</p> <p>3 inappropriate.</p> <p>4 Q. How can you determine the effect of</p> <p>5 including infringing material in a larger work</p> <p>6 without performing a counterfactual where that</p> <p>7 material is not present?</p> <p>8 A. By doing the analysis, which I did, which</p> <p>9 is to look at what was actually achieved, the ex</p> <p>10 post analysis, and then making an assessment of an</p> <p>11 apportionment. Although that is defendants'</p> <p>12 burden, I proactively done that in the way that</p> <p>13 you've obviously understood and described, and is</p> <p>14 detailed in my report.</p> <p>15 That, I believe, is the correct approach.</p> <p>16 Q. But how can you determine whether the</p> <p>17 presence of a part in a whole causes the success of</p> <p>18 the whole without removing the part and analyzing</p> <p>19 how successful the whole would have been in the</p> <p>20 but-for world?</p> <p>21 A. So you're suggesting how can you do it</p> <p>22 without a causal -- a counterfactual but-for world.</p> <p>23 In some ways that's a nonsensical</p> <p>24 question.</p> <p>25 We are clearly told by the cases, by the</p>

36 (Pages 138 - 141)

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<p>1 treaties, by this judge, that that is not a 2 relevant consideration.</p> <p>3 And so how can you do it without it? I 4 don't think it's applicable.</p> <p>5 Plus, the whole purpose of disgorgement 6 is to remove the profits that are associated with 7 the taking. So if, hypothetically, you presume 8 that Google could have achieved half as much with 9 an alternative, that does not excuse Google from 10 removing the profits on the other half that it 11 achieved by the taking. It's simply not an 12 applicable analysis.</p> <p>13 Q. I understand you think it's not 14 applicable. What I'm asking is, how do you prove 15 either a causal nexus or a apportionment without 16 hypothesizing a but-for world where the infringing 17 material isn't part of a larger work?</p> <p>18 MS. HURST: Object to the form.</p> <p>19 Q. (By Mr. Purcell) How do you do it just 20 as an analytical matter?</p> <p>21 A. Through the way that I have described for 22 you at, I think, great length.</p> <p>23 One is I look to the technical 24 contribution, and we have technical experts that do 25 that.</p>	<p>Page 142</p> <p>1 talked about that. I think we've talked about 2 centrality. I think we've talked about the 3 importance within the various apps, all the 4 analysis that the technical experts undertook.</p> <p>5 I think that all speaks to the technical 6 importance of the copyrights at issue.</p> <p>7 Q. You don't use any of that -- any of those 8 numbers that are derived from those analyses as 9 inputs in your apportionment analysis though, do 10 you?</p> <p>11 A. I use them as considerations within my 12 nexus arguments. I don't use any quantitative 13 output, to be specific to your question.</p> <p>14 Q. And with respect to the business 15 contributions of Android, there's nothing in the 16 record that quantifies the business contribution of 17 the 37 APIs' SSO and declaring code to the success 18 of Android, is there?</p> <p>19 A. We have talked about this at -- at great 20 length already. And for the nth time, there are no 21 documents that I'm aware that specifically cite the 22 words "37 declaring code," "37 API declaring code," 23 "infringed Java copyrights."</p> <p>24 There's nothing that's that specific. 25 But there are documents that, in my opinion,</p>
<p>Page 143</p> <p>1 I look to the business contribution. I 2 personally look to both the expectation of the 3 business contribution and affirmation of those 4 results.</p> <p>5 And then I have also looked to the 6 treaties in the -- in the law and experience that 7 I've had, which specifically tell me not to look at 8 the counterfactual. Judge Graywal, in his order, 9 specifically tells you not to look at alternatives 10 when assessing the causation.</p> <p>11 So I think I've tried to follow as 12 closely as I can what I understand to be the proper 13 methodology. And I have great confidence that by 14 following the proper -- proper methodology, I have 15 come up with a reasoned opinion as to the 16 contributing profits, certainly as compared to 17 Dr. Leonard's lines of code analysis, which is 18 wrong for a whole bunch of reasons. I think the 19 only reasoned opinion that's available in the 20 record of this case.</p> <p>21 Q. You mentioned the technical contribution. 22 There's nothing in the record that quantifies the 23 technical contribution of the 37 APIs to Android, 24 correct?</p> <p>25 A. I -- I would disagree. I think we've</p>	<p>Page 145</p> <p>1 suggest that the license that was required from Sun 2 was, in fact, necessary in order to generate these 3 revenues and was, in fact, closely tied causally -- 4 causally related to these revenues, given the 5 technical analysis, the market window of 6 opportunity, and the competitive threat.</p> <p>7 Q. And, in your view, it would be completely 8 irrelevant if there were compelling evidence 9 showing that Google would have made the exact same 10 profit without the -- the 37 APIs.</p> <p>11 A. In a copyright disgorgement case, it is, 12 in my opinion, completely irrelevant that they 13 could have done that. Because that would give a 14 known copier the ability to have an excuse to say, 15 Well, in hindsight I could have simply done 16 something else.</p> <p>17 And, in fact, Dr. Leonard, in conjunction 18 with Dr. Hausman, has specifically written papers 19 to explain why such a free option is not applicable 20 in assessment of intellectual property value.</p> <p>21 And as my experience is, that, no, it's 22 not a get out of jail free card if you could have 23 done it some other way. You have to account for 24 the profits that were made using the copyright.</p> <p>25 Q. You don't think that would provide a</p>

37 (Pages 142 - 145)

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<p>1 windfall to the copyright owner if, in fact, there 2 was no contribution of the infringed material to 3 the profits?</p> <p>4 A. No, because the element of a windfall, I 5 think, A, is not applicable. But, B, if it was, 6 hypothetically, would be more relevant to an 7 assessment of actual damages and loss.</p> <p>8 But the Copyright Statute, as I 9 understand from a layperson, makes it clear that 10 the copyright holder has the option, the ability to 11 both advance their actual harm as a measure of 12 damage and advance the profits made by the 13 infringer.</p> <p>14 So I think it's quite conceivable that 15 you could have someone whose copyrights were taken 16 and made widely successful and get an award of 17 damages that is far greater than that individual 18 could have ever achieved under their own accord, 19 but that is the purpose of the disgorgement.</p> <p>20 Q. All right. What's the causal nexus 21 between the SSO and declaring code of the 37 APIs 22 and Google's applications revenue?</p> <p>23 A. Well, I -- Dr. Leonard and I both agree. 24 It's a one-to-one correlation.</p> <p>25 I describe within my report at page 95</p>	<p>Page 146</p> <p>1 Q. And Google also serves advertising on 2 desktop platforms as well as mobile platforms, 3 correct?</p> <p>4 A. That is, in fact, their legacy business.</p> <p>5 Yes, sir.</p> <p>6 Q. So although Google may need Android to 7 earn applications revenue or digital content 8 revenue, it doesn't need Android to earn ads 9 revenue, correct?</p> <p>10 A. True, which is why my analysis does not 11 include or apportions away the revenues associated 12 with other platforms or desktops or anything else.</p> <p>13 Q. And when Google serves an ad on a 14 non-Android platform, do you know what Google 15 technology is involved in making that happen?</p> <p>16 A. Generally, yes. There is a -- an entire 17 category of expenses that are tracked by Google 18 that relate to their Search R&D in technology. I 19 don't know from a technical perspective, you know, 20 the code or the like, but yes it's a -- it's an 21 entirely distinct area of technology.</p> <p>22 Q. Do you know if Google Search Engine is a 23 necessary part of serving ads on non-Android 24 platforms?</p> <p>25 A. I mean, it depends on the types of ads.</p>
<p>Page 147</p> <p>1 why I think there's a causal nexus from a -- a 2 business standpoint. And I think the same 3 technical and legal understanding apply.</p> <p>4 Q. And what about the -- the causal nexus 5 between the SSO and declaring code of the 37 APIs 6 and the digital content revenue?</p> <p>7 A. Same answer. Dr. Leonard and I agree 8 that there is causal connection. And my analysis 9 extends to the technical business and legal 10 understanding.</p> <p>11 Q. Now, Google sells phone and tablet 12 hardware for the Android platform only, correct?</p> <p>13 A. True.</p> <p>14 Q. And Google sells applications through 15 Google Play only for Android devices, correct?</p> <p>16 A. That's my understanding and focus.</p> <p>17 Q. And it's sells digital content through 18 Google Play only; is that right?</p> <p>19 A. Currently, I believe that's true.</p> <p>20 Q. But google serves advertising on all 21 mobile platforms, not just Android, correct?</p> <p>22 A. They have distribution relationships 23 with, for example, Apple, and they sell mobile 24 advertising on those platforms. It's a very large 25 business segment for them.</p>	<p>Page 149</p> <p>1 But generally speaking, it's an important element, 2 yes.</p> <p>3 Q. Google Search Engine predicated Android by 4 several years, correct?</p> <p>5 A. Yes, sir.</p> <p>6 Q. It does not depend on Android for its 7 existence.</p> <p>8 A. It does not depend on Android, though I 9 believe today it is informed and enhanced by 10 Android. And I make reference to that in my 11 report, I think, at paragraph 102.</p> <p>12 Q. And Google's Web Search technology, 13 that's the foundation of Google's business, 14 correct?</p> <p>15 A. I -- I don't dispute that.</p> <p>16 Q. That's what made Google the company it is 17 today, at least -- at least initially.</p> <p>18 A. In general terms, I think that's fair.</p> <p>19 Q. And Google's ad targeting software is 20 also a necessary part of serving ads, isn't it, on 21 non-Android mobile platforms?</p> <p>22 A. I don't know if it's universally 23 necessary, but I think generally that's fair.</p> <p>24 Q. And Google's ad targeting software also 25 predicated Android by several years, correct?</p>

38 (Pages 146 - 149)

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<p style="text-align: right;">Page 150</p> <p>1 A. Yes, sir.</p> <p>2 Q. And Google Search technology and Search Engine, it's valuable, correct?</p> <p>3 A. Absolutely, and in my calculations, given more value than Android.</p> <p>6 Q. And, similarly, Google's ad targeting software is valuable, isn't it?</p> <p>8 A. Yes. Collectively, individually, and 9 within my analysis, collectively given more value 10 apportionment than Android.</p> <p>11 Q. Does your causal nexus analysis do 12 anything to take account of the fact that Google 13 cannot serve ads on Android devices without using 14 the Google Search Engine and the Google ad 15 targeting software?</p> <p>16 A. Did you say does it take it into account?</p> <p>17 What was the descriptor you used? Did we 18 recognize that? I'm sorry.</p> <p>19 Q. Does your causal nexus analysis take into 20 account the fact that Google cannot serve ads on 21 Android devices without using its search engine and 22 its ad targeting software?</p> <p>23 A. Generally, yes, and that I recognize it.</p> <p>24 And, in fact, you and I spoke earlier in the day 25 about the fact that there would be other elements</p>	<p style="text-align: right;">Page 152</p> <p>1 than there is in purchasing an application on 2 Google Play?</p> <p>3 A. I presume that to be true. That makes 4 common sense. I'm just telling you that's a 5 technical question and I'm not providing a 6 technical opinion in that regard, but I certainly 7 accept that proposition.</p> <p>8 Q. Doesn't the presence of this additional 9 technology in the ad serving process mean that the 10 causal nexus between the 37 APIs and Google ad 11 revenue is much more attenuated than the causal 12 nexus between the 37 APIs and the other revenue 13 streams you identified?</p> <p>14 A. Good question. No, it does not.</p> <p>15 And, in particular, if you look to, for 16 example, the guidance from Judge Graywal, in that 17 case we were talking about load balancing 18 technology, global server load balancers.</p> <p>19 And the patented -- sorry -- the 20 copyrighted technology at issue was only one piece 21 of a very complex device. And as instructed by the 22 Court, the analysis was to determine whether or not 23 that device, in part, would function but for the 24 copyrights at issue and not to confuse that 25 analysis with all of the other technologies in the</p>
<p style="text-align: right;">Page 151</p> <p>1 of the platform, that if you removed them would 2 cause the platform not to function.</p> <p>3 I think this would be one of those 4 elements, which is something that's really taken 5 into account in the apportionment equation.</p> <p>6 Q. But is it relevant to your causal nexus 7 analysis?</p> <p>8 A. I think it's understood and therefore 9 relevant, sure. I don't object to that. It's not 10 explicit in the causal analysis, because I don't 11 think that's necessary.</p> <p>12 Q. Well, there's far more Google technology 13 involved in serving an ad on an Android device than 14 enabling the sale of an app through Google Play, 15 isn't there?</p> <p>16 A. I don't have an opinion. I presume that 17 to be the case. That's really a technical 18 question.</p> <p>19 Q. Well, you don't need the search engine 20 and the ad targeting software to sell an app, but 21 you do need it to serve an ad; isn't that right?</p> <p>22 A. That statement is true.</p> <p>23 Q. And so doesn't it follow from that, that 24 there's a lot more Google technology involved in 25 the process of serving an ad on an Android device</p>	<p style="text-align: right;">Page 153</p> <p>1 box, even though it was clear that there was other 2 technologies. In fact, in that case there were 3 also patent claims that specifically addressed, and 4 I specifically valued other technologies.</p> <p>5 That does not interrupt the copyright 6 causation analysis that I put forth in this report.</p> <p>7 Q. So, in your view, the causal nexus 8 analysis doesn't need to take account of -- of the 9 other technologies involved in enabling the 10 revenue, that's a question you address at the 11 apportionment stage; is that right?</p> <p>12 A. Exactly.</p> <p>13 Q. All right. I would like to go to your 14 responsive report at paragraph 254 -- strike 15 that -- 255. Same page, page 75.</p> <p>16 MS. HURST: Responsive report, you said?</p> <p>17 MR. PURCELL: Yes.</p> <p>18 MS. HURST: Thank you.</p> <p>19 Q. (By Mr. Purcell) Are you there, sir?</p> <p>20 A. I am.</p> <p>21 Q. Okay. You say in paragraph 255 that 22 "Developer interest and acceptance in programming 23 in Objective-C is incentivized largely by the 24 attractive developer revenue-sharing model that 25 Apple provides for its developers."</p>

39 (Pages 150 - 153)

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<p style="text-align: right;">Page 214</p> <p>1 to do that, and in consideration of the technical 2 and business significant of the copyrights at 3 issue, it's not necessary. 4 And then I would add, third, most 5 importantly, I do not believe that Dr. Leonard's 6 line of code analysis even speaks to this issue and 7 substance, but importantly is an analysis that's 8 been rejected by courts repeatedly that there is -- 9 it is not an accepted approach to use a line of 10 code apportionment because that only considers a 11 quantitative metric, and it ignores the qualitative 12 value. In the cases -- in my experience, very 13 specifically rebut that, and I point you to most -- 14 most directly related to me, again, Judge Grewal, 15 who discussed that issue very specifically in the 16 Brocade case.</p> <p>17 Q. What did you do -- what did you do in 18 your attempt to apportion the various components of 19 the Android platform?</p> <p>20 A. I attempt to understand the technical 21 significance of the copyrights vis-a-vis the other 22 elements of the platform. I sought to understand 23 any theory advanced by defendants, and then I 24 reconciled that with my review of the business 25 conditions.</p>	<p style="text-align: right;">Page 216</p> <p>1 contributing efforts. I don't believe that they 2 do. 3 Q. Did you ask them to? 4 A. I did not specifically ask that question. 5 Q. And you made no attempt to do that 6 yourself? 7 A. No. From a technical perspective, I 8 don't view that I'm qualified to do that. And, 9 again, we were talking about my rebuttal report 10 because it would have been my expectation that that 11 would have been detailed in Dr. Leonard's report. 12 Q. You also state -- this is, again, in 13 paragraph 285 of your responsive report -- that 14 Google appears to have contributed only 26 percent 15 of the code to the platform. 16 Why is that relevant to anything? 17 A. Again, I think that speaks to the 18 apportionment issue and the percentage of profit 19 that should be retained by Google as opposed to 20 disgorgement. And so in many ways, similar to your 21 last line of questions, to the extent that the 22 evidence shows that Google was making a larger, 23 relatively more important, relatively unique 24 contribution, all less being equal, that would 25 argue for a larger apportionment towards Google.</p>
<p style="text-align: right;">Page 215</p> <p>1 Q. What did you do to attempt to understand 2 the technical significance of the various elements 3 of the Android platform?</p> <p>4 A. My report refers back to the technical 5 expert analysis that I discuss previously. So it 6 would include the work of Drs. Leonard, Schmidt, 7 Kemerer -- Kemerer, and the coding analysis of the 8 other -- Mr. Ziedman.</p> <p>9 Q. You mentioned Dr. Leonard in that list. 10 Was that a mistake, or did you mean --</p> <p>11 A. No. I also considered Dr. Leonard's 12 report and his evidence as to the importance, or 13 lack thereof, of the copyrights at issue. I 14 obviously rebut that. And we talked about that 15 at -- at great length.</p> <p>16 Q. Which of Oracle's experts provides any 17 opinion about the technical significance of other 18 elements in the Android platform apart from the 19 structure, sequence, and organization of the 20 37 APIs?</p> <p>21 A. Well, I think all of the experts, to some 22 extent, talk about the importance of that 23 contribution relative to the Android platform as a 24 whole. I don't know that they specifically rank 25 order or quantify quantitatively the other</p>	<p style="text-align: right;">Page 217</p> <p>1 I think, conversely, the fact that the 2 record shows that in comparison to the contribution 3 made by Sun and Oracle, the Google contribution has 4 to be interpreted in light of the fact that it was 5 not all unique proprietary attribution to them.</p> <p>6 Q. The apportionment analysis compares 7 infringing material and non-infringing material, 8 correct?</p> <p>9 A. Well, more specifically, it seeks to 10 determine the attribution that is due to the 11 copyright holder. By definition there might be 12 some comparison involved in that, but I don't know 13 that there has to be an explicit dual measurement 14 in comparison.</p> <p>15 Q. But it doesn't look at an attribution 16 between material that Google created and material 17 that Oracle created, does it?</p> <p>18 MS. HURST: Object to the form.</p> <p>19 THE DEPONENT: I'm back to my last 20 question. I don't think that that's specifically 21 required. I think what's required is to understand 22 the contribution of the copyright holder.</p> <p>23 Q. (By Mr. Purcell) Right. And so then why 24 is the contribution of Google relevant if we are 25 trying to understand the contribution of the</p>

55 (Pages 214 - 217)

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<p style="text-align: right;">Page 218</p> <p>1 copyright holder?</p> <p>2 A. Well, in context, I think it's helpful to</p> <p>3 understand what Oracle brought versus what Google</p> <p>4 brought to the table. Your questions a moment ago</p> <p>5 sought to solicit that -- that exact comparator,</p> <p>6 and so this is one way to look at that.</p> <p>7 Q. Oracle is not entitled to get profits</p> <p>8 based on the contribution of anybody other than</p> <p>9 Oracle, is it?</p> <p>10 A. Well, more specifically, they are not</p> <p>11 entitled to any profits other than the contribution</p> <p>12 of the copyrights at issue.</p> <p>13 Q. So then it is irrelevant, isn't it, that</p> <p>14 third parties, other than Oracle and Google, also</p> <p>15 contributed to the Android platform?</p> <p>16 A. I don't know that I would say it's</p> <p>17 irrelevant. I think it's contextual, and I provide</p> <p>18 it in a contextual way.</p> <p>19 Q. It's not an input to your apportionment</p> <p>20 calculation?</p> <p>21 A. No. I mean, it perhaps helps to explain</p> <p>22 the commingling aspect, but it does not result in a</p> <p>23 direct input.</p> <p>24 Q. Now, you don't deny that components of</p> <p>25 the Android platform, other than the SSO and</p>	<p style="text-align: right;">Page 220</p> <p>1 conclusions of the relative importance of the Java</p> <p>2 contribution.</p> <p>3 Q. So you think the fact that the Java APIs</p> <p>4 are contained within the core libraries? You think</p> <p>5 that the word "core" means that they are more</p> <p>6 important?</p> <p>7 A. As a layperson, I do believe that's the</p> <p>8 case.</p> <p>9 Q. Not based on any technical analysis, is</p> <p>10 it?</p> <p>11 A. Well, it is confirmed by the technical</p> <p>12 analysis that I refer to in my report, where time</p> <p>13 and time again the experts come back and say they</p> <p>14 are more important. They are more central. They</p> <p>15 are required in more cases. They do contribute to</p> <p>16 more apps. They do contribute to more high-ranking</p> <p>17 apps. So I think it's consistent.</p> <p>18 Q. But you understand that the Android</p> <p>19 operating system also contains many core libraries</p> <p>20 that are not accused of infringement, correct?</p> <p>21 A. I do.</p> <p>22 Q. And do you have an understanding of what</p> <p>23 those non-infringing core libraries do?</p> <p>24 A. I mean, there is discussion, that may</p> <p>25 even be included in my report, where there are</p>
<p style="text-align: right;">Page 219</p> <p>1 declaring code of the 37 APIs, created value, do</p> <p>2 you?</p> <p>3 A. I do not.</p> <p>4 Q. You don't deny that those other</p> <p>5 contributions to the Android platform made</p> <p>6 contributions to Google profits?</p> <p>7 A. I do not deny that.</p> <p>8 Q. We have talked about the Linux kernel</p> <p>9 before, but do you have an understanding what the</p> <p>10 Linux kernel in Android does?</p> <p>11 A. Really not from a technical perspective.</p> <p>12 I understand that that is part of the -- sort of</p> <p>13 the baseline underlying code that's used to build</p> <p>14 the Android platform.</p> <p>15 Q. Do you have an understanding of the</p> <p>16 extent to which the Linux kernel contributed to</p> <p>17 Google's Android-related profits?</p> <p>18 A. I have not made a particular analysis or</p> <p>19 quantification of that. We talked before lunch</p> <p>20 about the fact that in the description of the</p> <p>21 technical components of the Android code, Linux is</p> <p>22 clearly listed. I believe it is listed at the</p> <p>23 bottom. But the Java contribution is -- listed is</p> <p>24 part of the core application of that code, which I</p> <p>25 believe to also be consistent with the technical</p>	<p style="text-align: right;">Page 221</p> <p>1 tables that show what the 37 APIs at issue do</p> <p>2 versus others. But that's really a technical</p> <p>3 discussion, and from memory I -- I couldn't</p> <p>4 describe that difference to you. I would defer to</p> <p>5 the technical experts.</p> <p>6 Q. And, in fact, all of the implementing</p> <p>7 code in the Android core libraries, that's not</p> <p>8 accused of infringement?</p> <p>9 A. As we discussed before lunch, true.</p> <p>10 Q. And that made a contribution to the</p> <p>11 functioning -- strike that.</p> <p>12 That made a contribution to the profits</p> <p>13 that Google earned from Android, didn't it?</p> <p>14 A. Sure.</p> <p>15 Q. And you haven't made any attempt to</p> <p>16 quantify that?</p> <p>17 A. Well, I have, because I have made an</p> <p>18 attempt to address the commingling factor. There</p> <p>19 is not evidence, in my opinion, that would allow</p> <p>20 you to do a second or third level apportionment in</p> <p>21 recognizing that it is defendants' burden.</p> <p>22 I considered the apportionment metric put</p> <p>23 forth by the defendants, i.e., lines of code, and</p> <p>24 was able to reject that out of hand because of the</p> <p>25 decisions of multiple courts and the basis for</p>

56 (Pages 218 - 221)

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<p style="text-align: right;">Page 222</p> <p>1 those decisions.</p> <p>2 Q. You haven't attempted to independently</p> <p>3 quantify the value or the contribution of the</p> <p>4 implementing code in the Android core libraries to</p> <p>5 Android's profit, correct?</p> <p>6 A. True. That was not my assignment, and I</p> <p>7 have not quantified that. I have sought</p> <p>8 information in that regard as it -- a great --</p> <p>9 relates to the commingling issue. I'm not aware of</p> <p>10 any.</p> <p>11 Q. What information have you sought that</p> <p>12 would allow you to separately value the</p> <p>13 contribution of the implementing code in the</p> <p>14 Android core libraries to Google's Android-related</p> <p>15 profits?</p> <p>16 A. Most specifically information in the</p> <p>17 Dr. Leonard report or the technical expert reports</p> <p>18 of defendants. Generally where they would seek to</p> <p>19 meet their burden by putting forth evidence of</p> <p>20 apportionment to address commingling.</p> <p>21 Q. What information have you personally</p> <p>22 sought on that issue?</p> <p>23 A. My review of the reports.</p> <p>24 Q. Did you ask any of Oracle's technical</p> <p>25 experts to analyze that issue?</p>	<p style="text-align: right;">Page 224</p> <p>1 technical analysis would you be looking for?</p> <p>2 A. Technical expert reports.</p> <p>3 Q. Analyzing what?</p> <p>4 A. Analyzing the contributions on a</p> <p>5 quantitative way of the copyrights at issue versus</p> <p>6 the other technical elements that contribute to</p> <p>7 profits seeking to tie those contributions back to</p> <p>8 the business records.</p> <p>9 Q. You don't have any specific technical</p> <p>10 analysis in mind that would be able to unpack the</p> <p>11 value of the implementing code in the Android core</p> <p>12 libraries versus the value of the structure,</p> <p>13 sequence, and organization of the 37 Java SE API</p> <p>14 packages; is that right?</p> <p>15 A. Correct.</p> <p>16 Q. And you understand, similarly, the</p> <p>17 Android operating system contains an Android</p> <p>18 runtime?</p> <p>19 A. Yes.</p> <p>20 Q. Do you have an understanding of what the</p> <p>21 Android runtime does?</p> <p>22 A. Not from a technical perspective, no.</p> <p>23 Q. Do you understand how important the</p> <p>24 Android runtime is to the function of the Android</p> <p>25 operating system?</p>
<p style="text-align: right;">Page 223</p> <p>1 A. No, I did not.</p> <p>2 Q. How would one go about analyzing that</p> <p>3 issue? If you wanted to do a second or third level</p> <p>4 apportionment, what you would -- what you would</p> <p>5 want to see?</p> <p>6 A. At that level, which is based upon our</p> <p>7 conversation, which is a technical level, that's</p> <p>8 outside the core of my area of expertise. I would</p> <p>9 seek the counsel of the technical experts.</p> <p>10 Q. What information would you, as a damages</p> <p>11 quantifier, find persuasive in order to enable you</p> <p>12 to do a second level apportionment between all the</p> <p>13 implementing code in the Android core libraries and</p> <p>14 the structure, sequence, and organization, on the</p> <p>15 other hand, of 37 API packages?</p> <p>16 MS. HURST: Object to the form.</p> <p>17 THE DEPONENT: To the extent that there</p> <p>18 was a detailed technical analysis that was</p> <p>19 confirmed by the business records of the case,</p> <p>20 that's the type of information I would find</p> <p>21 persuasive. I can't tell you that I would find it</p> <p>22 persuasive per se, because we're speaking</p> <p>23 hypothetically, but that's the type of thing that I</p> <p>24 would look to.</p> <p>25 Q. (By Mr. Purcell) What type of detailed</p>	<p style="text-align: right;">Page 225</p> <p>1 A. I believe that it's required. I don't</p> <p>2 have a quantitative metric of importance.</p> <p>3 Q. That's not accused of the infringement,</p> <p>4 correct? The Android runtime?</p> <p>5 A. Correct.</p> <p>6 Q. You made no attempt to separately value</p> <p>7 the contribution to Google's profits of the Android</p> <p>8 runtime, correct?</p> <p>9 A. No different than what we discussed a few</p> <p>10 moments ago about addressing the commingling issue</p> <p>11 generally.</p> <p>12 Q. And prior to the creation of the Android</p> <p>13 runtime, the Android operating system contains</p> <p>14 something called a Dalvik virtual machine.</p> <p>15 Are you aware of that?</p> <p>16 A. I am.</p> <p>17 Q. And you are aware that that was a big</p> <p>18 part of what the patent case was about in the</p> <p>19 earlier trial?</p> <p>20 A. Generally, yes.</p> <p>21 Q. Do you have an understanding what the</p> <p>22 Dalvik virtual machine did?</p> <p>23 A. I would just say that it is comparable to</p> <p>24 the Java virtual machine and basically was an</p> <p>25 element to the platform that transitioned --</p>

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<p style="text-align: right;">Page 226</p> <p>1 translated code from the readable code ultimately 2 into code that was implemented by the processors. 3 Q. And the Dalvik virtual also made a 4 contribution to Google's Android-related profits, 5 didn't it? 6 A. I don't dispute that. 7 Q. But you've made an attempt to quantify 8 that contribution? 9 A. Again, the same attempt that I made for 10 the other elements of commingling. I -- there's 11 not information that would allow me to separate out 12 that contribution. And, importantly, that is a 13 burden that is owned by Dr. Leonard, and he's not 14 done such. 15 Q. And the Android operating system also 16 contains various applications, correct? 17 A. The Android platform contains certain 18 applications. I would -- 19 Q. Such as a phone, clock, things like that? 20 Basic things? 21 A. Yes. I think that's true. 22 Q. And these preinstalled applications on 23 the Android platform, they also made a contribution 24 to Google's Android-related profits, didn't they? 25 A. Not necessarily a contribution that was</p>	<p style="text-align: right;">Page 228</p> <p>1 profits. 2 Q. You might even call the presence of the 3 phone functionality on a mobile phone a gating 4 item, correct? 5 A. On a mobile phone generally? Sure. 6 Q. You also understand that Google's 7 strategy to -- well, strike that. Let me finish up 8 the last line of questions. 9 You haven't made any effort to separately 10 quantify the contribution to Google's 11 Android-related profits of the preinstalled 12 applications on the Android platform, correct? 13 A. You have asked me this question 14 repeatedly about each and every element you've 15 raised. And, yes, I sought to understand the 16 contributions that were made to the profits of 17 Android. I determined that that could first be 18 measured by focusing on the platform-related 19 economics. And then I sought to specifically see 20 if there could be a second level apportionment, 21 aside from cost deductions, that would allow me to 22 distinguish between the copyrights at issue and any 23 other element and concluded that, because of the 24 commingling, there was not data sufficient for me 25 to do so.</p>
<p style="text-align: right;">Page 227</p> <p>1 unique to the platform. I would put those more in 2 the category of contributions that extend, you 3 know, broadly. But, sure, they would have made a 4 contribution. 5 Q. Well, consumers expect that their mobile 6 phone will actually have a phone application, don't 7 they? 8 A. They do; but that is, for example, 9 provided by the platform partners, too, as well. 10 Q. Well, the software is provided by Google, 11 isn't it? 12 A. Well, not in the case of the platform 13 partners. I don't believe so. Like the Apples of 14 the world. 15 Q. We are talking about Android phones. We 16 are not talking about the iOS phones. 17 In the case of Android phones, the Google 18 software provides the phone functionality, correct? 19 A. True. 20 Q. And that makes a contribution to 21 Android-related profits, correct? 22 A. At some general level, I wouldn't dispute 23 that. I don't believe that there is a specific 24 line item or element of revenue and profit that 25 flows to Google because of telephony revenues and</p>	<p style="text-align: right;">Page 229</p> <p>1 I then looked to see if Dr. Leonard, 2 consistent with his obligations, provided me a 3 route to solve that problem and concluded that he 4 did not. 5 And so, in my opinion, the best available 6 evidence of apportionment is what I've set forth in 7 my report at the level set forth in my report. 8 Q. You also understand that Google's 9 strategy to release Android as an open source 10 platform was crucial to the success of the 11 platform, correct? 12 A. I -- I don't believe I draw that opinion 13 in my report. And I specifically talk about the 14 implications of certain characteristics of open 15 source platforms at various points in time. So 16 your question would have to be more specific. 17 Q. Sure. Why don't you take look at 18 paragraph 58 of your responsive report on page 18. 19 So in the third sentence of that 20 paragraph you write, "Additionally, it suggests 21 Apple's closed environment would have monopolized 22 the smartphone market which ignores the success 23 that resulted from Android's free open source 24 model." 25 Do you see that?</p>

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<p style="text-align: right;">Page 230</p> <p>1 A. I do.</p> <p>2 Q. So at least some part of the success of</p> <p>3 Android and Google's Android-related profits are a</p> <p>4 result of the free open source model that Google</p> <p>5 released Android under, correct?</p> <p>6 A. Well, certainly that is an element of</p> <p>7 their business model. I don't know as -- I thought</p> <p>8 your last question implied that there's an</p> <p>9 incremental contribution of that. I would note</p> <p>10 that this discussion we are referring to is</p> <p>11 specifically in response to the Kim and Berry</p> <p>12 models. So a critique of Dr. Leonard's use of</p> <p>13 those, not a general discussion of apportionment.</p> <p>14 Q. Nonetheless, Google's strategy to release</p> <p>15 Android as an open source platform did make a</p> <p>16 significant contribution to Android's success,</p> <p>17 didn't it?</p> <p>18 A. I don't believe I use the word</p> <p>19 "significant" or draw that relative qualitative</p> <p>20 assessment in my report.</p> <p>21 Q. Do you have any opinion on the extent to</p> <p>22 which Android would have succeeded had it not been</p> <p>23 open sourced?</p> <p>24 A. Well, to the extent that it was a</p> <p>25 platform that included a license from Java with the</p>	<p style="text-align: right;">Page 232</p> <p>1 Q. In the event your damages calculation</p> <p>2 attributes about \$8.8 billion out of Google's</p> <p>3 \$9.8 billion profit to the platform, correct?</p> <p>4 A. To the copyrights at issue using the</p> <p>5 platform as part of the analysis, yes.</p> <p>6 Q. And that's about 44 percent of Google's</p> <p>7 Android-related profits?</p> <p>8 A. Okay. I mean, mathematically that sounds</p> <p>9 about right.</p> <p>10 Q. Do you believe that the structure,</p> <p>11 sequence, and organization of the 37 API packages</p> <p>12 from Java SE is responsible for 44 percent of</p> <p>13 Android's profits?</p> <p>14 MS. HURST: Object to the form.</p> <p>15 THE DEPONENT: I don't use the word</p> <p>16 "responsible." I believe that the copyrights at</p> <p>17 issue were integral to the strategy of having -- of</p> <p>18 being able to avoid the platform partner cost of</p> <p>19 approximately 35.6 percent, and that it's not</p> <p>20 possible to further separate or apportion.</p> <p>21 Q. (By Mr. Purcell) Do you believe that</p> <p>22 44 percent of Android-related profits are</p> <p>23 attributable to the structure, sequence, and</p> <p>24 organization of the 37 Java SE API packages?</p> <p>25 A. Again, I don't if your question is</p>
<p style="text-align: right;">Page 231</p> <p>1 related elements of control and security, I think</p> <p>2 it would have been as successful.</p> <p>3 Q. And what's that based on?</p> <p>4 A. Based upon that that was a focus of the</p> <p>5 discussions early on between Android and Google.</p> <p>6 That clearly -- I'm sorry. Between Google and</p> <p>7 Android and Sun. That clearly it was Sun's</p> <p>8 expectation that a license consistent with their</p> <p>9 usual practice would allow Google to be successful.</p> <p>10 Q. So your testimony is that if Android had</p> <p>11 not been open sourced, it would have been just as</p> <p>12 successful?</p> <p>13 A. Again, I don't draw that opinion in my</p> <p>14 report. I'm merely answering your questions in</p> <p>15 response to this deposition. That's outside the</p> <p>16 scope of my analysis, in large part because, again,</p> <p>17 it trespasses into the world of the counterfactual,</p> <p>18 which I do not believe to be relevant.</p> <p>19 Q. In any event, you made no attempt to</p> <p>20 qualify the contribution to Google's</p> <p>21 Android-related profits of the open source</p> <p>22 strategy; is that right?</p> <p>23 A. I don't make a specific quantification of</p> <p>24 that contribution. I don't believe that that's</p> <p>25 possible.</p>	<p style="text-align: right;">Page 233</p> <p>1 intentionally trying to limit the scope of the</p> <p>2 accused infringement, but I do believe that the</p> <p>3 conclusions I've reached is a fair and best</p> <p>4 available metric to assess the profits that are --</p> <p>5 attributable to the copyrights at issue.</p> <p>6 Q. So given all the other aspects of the</p> <p>7 Android platform, you believe that 44 percent of</p> <p>8 Android-related profits are attributable to these</p> <p>9 10,000 lines of code in the structure, sequence,</p> <p>10 and organization and declaring code of these 37 API</p> <p>11 packages?</p> <p>12 MS. HURST: Object to the form.</p> <p>13 THE DEPONENT: I believe that the proper</p> <p>14 form of damages in a disgorgement model is as I</p> <p>15 have determined, and, therefore, yes, that that's a</p> <p>16 fair measure of profit.</p> <p>17 Q. (By Mr. Purcell) Do you have any opinion</p> <p>18 as to whether Google could have taken a license to</p> <p>19 Sun's OpenJDK in 2007 and still gotten Android to</p> <p>20 market on the same schedule?</p> <p>21 A. I do not. I do not believe that that is</p> <p>22 the case. I think there is some discussion of the</p> <p>23 OpenJDK alternative within my report that I would</p> <p>24 refer you to. I believe that there are also other</p> <p>25 experts, Ms. Murray in particular, who have</p>

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<p style="text-align: right;">Page 346</p> <p>1 occur whenever there are synergies?</p> <p>2 A. Well, I think that when there is</p> <p>3 commingling, there could be synergies, but not</p> <p>4 necessarily so. But generically speaking, I -- I</p> <p>5 think you could have synergies. You could have</p> <p>6 unexpected consequences from your original plan.</p> <p>7 For example, in this case, unexpected</p> <p>8 activities where the growth of the wireless market</p> <p>9 greater than any expectations, the migration of</p> <p>10 demand to consumer applications and not just</p> <p>11 business enterprise applications.</p> <p>12 Google benefited from those unexpected</p> <p>13 events and earned profits as a result of those</p> <p>14 because of their reliance on the copyrights at</p> <p>15 issue. But for the purpose of disgorgement, you</p> <p>16 need to take an ex post accounting of that that and</p> <p>17 you need to remove the benefits that Google</p> <p>18 received as a result of its reliance on the</p> <p>19 copyright, even though there were external or</p> <p>20 unexpected impacts.</p> <p>21 Q. Can you give us examples where there is</p> <p>22 no commingling?</p> <p>23 A. Well, the -- the best example is when</p> <p>24 you're talking about a product that's driven by a</p> <p>25 single technology or form of intellectual property.</p>	<p style="text-align: right;">Page 348</p> <p>1 central to that economic benefit, I than challenged</p> <p>2 the -- the methodology to say, well, we know</p> <p>3 that there's a platform benefit associated with the</p> <p>4 copyrights and that's 35.6 percent.</p> <p>5 We know we're going to leave Google with</p> <p>6 64 percent. But can we break down that</p> <p>7 35.6 percent even finer to specifically identify</p> <p>8 the contribution of the copyrights at issue as</p> <p>9 opposed to some technology contributed by Google.</p> <p>10 And what I concluded is that, no, we</p> <p>11 cannot because of the commingling. There isn't a</p> <p>12 way to break those things out. And so as I</p> <p>13 understand the proper method and the case law,</p> <p>14 the -- that is to the benefit of the defendant in</p> <p>15 the sense that that means that all of those</p> <p>16 commingled profits should be awarded in the form of</p> <p>17 disgorgement after taking into account applicable</p> <p>18 cost.</p> <p>19 Q. Now, Mr. Malackowski, in that last answer</p> <p>20 you used the phrase or the word "gated" item.</p> <p>21 What did you mean by that? How do you</p> <p>22 define that?</p> <p>23 A. Yeah, that -- that's really my language</p> <p>24 that sort of picks up on this notion that there was</p> <p>25 a critical window of opportunity, and it keeps</p>
<p style="text-align: right;">Page 347</p> <p>1 When I teach this subject, we always talk</p> <p>2 about the distinction between, frankly,</p> <p>3 smartphones, which are a very aggregated platform</p> <p>4 or pharmaceuticals. In pharmaceuticals, you rarely</p> <p>5 have a commingling issue because the technology at</p> <p>6 issue, in most cases patents. A single patent</p> <p>7 drives a compound of the drug. So that's the</p> <p>8 genetic sample that we use.</p> <p>9 In copyrights, I think it might be more</p> <p>10 applicable to look at the music industry, right.</p> <p>11 If you have a copyright on a song, there's usually</p> <p>12 not a lot of commingling at issue. There might be</p> <p>13 apportionment across the other songs in the album,</p> <p>14 but not necessarily commingling.</p> <p>15 Q. Okay. Now, you may have mentioned this,</p> <p>16 but I'm going to ask you again anyway.</p> <p>17 How is the legal theory of commingling</p> <p>18 relevant to the opinion that you've expressed in</p> <p>19 paragraph 17?</p> <p>20 A. Understanding that the copyrights at</p> <p>21 issue were a gating feature and an enabling of</p> <p>22 Google to reach its objective of capturing the</p> <p>23 platform value for Android; i.e., as opposed to</p> <p>24 like an Apple, for example.</p> <p>25 Understanding that these copyrights were</p>	<p style="text-align: right;">Page 349</p> <p>1 reminding me to go back to the fact that it's not</p> <p>2 just that the copyrights at issue were important.</p> <p>3 It's that because of the unique window of</p> <p>4 opportunity to enter this market, given all the</p> <p>5 competitive dynamics around it, they were</p> <p>6 critically important at the time. That without</p> <p>7 access to these copyrights, there would not be the</p> <p>8 revenue and profit generation that there was, in my</p> <p>9 opinion.</p> <p>10 Q. And that's what you mean by gated?</p> <p>11 A. Yes. There's -- gated is not a term of</p> <p>12 art or a term of case law.</p> <p>13 Q. It's not -- so it's -- it's</p> <p>14 Mr. Malackowski's term?</p> <p>15 A. Yes.</p> <p>16 Q. Okay. And you've defined what you meant</p> <p>17 by that?</p> <p>18 A. Yes.</p> <p>19 Q. Now, let's move to paragraph 21, please.</p> <p>20 Mr. Malackowski, are you assuming that</p> <p>21 each of the bullet points is a fact, or are you</p> <p>22 testifying that each of them is a fact?</p> <p>23 Or do you want me to break that down into</p> <p>24 two questions?</p> <p>25 A. No, I understand -- I understand. Let me</p>

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<p style="text-align: right;">Page 258</p> <p>1 premised on the identify of those parties right 2 now, and that is totally inappropriate given 3 Google's refusal to produce these documents. 4 MR. PURCELL: I'm actually not, Counsel. 5 I'm asking hypothetical questions. 6 Q. (By Mr. Purcell) Do you have any reason 7 to believe, Mr. Malackowski, that Google wouldn't 8 receive advertising revenue on alternative 9 smartphone platforms but for the existence of 10 platform? 11 THE DEPONENT: To that question, I don't 12 have a reason to believe they wouldn't, because 13 they already do receive advertising revenue on 14 non-Android platforms, and I don't have any basis 15 to believe that would disappear but for Android. 16 Q. (By Mr. Purcell) Taking a look at 17 paragraph 51 of your responsive report, the second 18 line of that paragraph says -- second sentence of 19 that paragraph says, "This basis assumes every 20 person in the U.S. over the age of 10 owns a mobile 21 handset." 22 You understand, don't you, that the 23 Kim model defines market size with reference to the 24 potential market rather than the actual market of 25 smartphone users?</p>	<p style="text-align: right;">Page 260</p> <p>1 don't have a -- no objection to that. 2 Q. Do you know what percentage of 3 11-year-old Americans own mobile handsets? 4 A. No. Neither does Dr. Leonard. 5 (Discussion off the stenographic record.) 6 Q. (By Mr. Purcell) Mr. Malackowski, I 7 would like to talk a little bit about your 8 lost-profits analysis? 9 A. Okay. 10 Q. Oracle produced data in this case that 11 provides Sun's and Oracle's Java ME licensing 12 revenue by customer, correct? 13 A. I believe that's true, or certainly my 14 recollection is it provided data by customers for 15 the larger customers. I think there was 16 ultimately -- has to be expected all other 17 catchall, so I don't think everything is provided by 18 customer. 19 Q. And various Oracle witnesses also 20 provided their best recollection of specific 21 Java ME licensing deals that they believe were 22 impeded by Android, correct? 23 A. Well, in response to questions that they 24 were asked, I don't know that it's fair to say that 25 every witness or those witnesses that discussed</p>
<p style="text-align: right;">Page 259</p> <p>1 A. That would be consistent with my 2 recollection, and also just the general definition 3 of market size, it's often referred to as sort of 4 the total available market, TAM, sure. 5 Q. Dr. Leonard is not assuming that 6 everybody over the age of ten would own a 7 smartphone, he's defining the market as -- the 8 potential market as being Americans over the age of 9 ten; isn't that right? 10 A. Well, so the total available market as 11 used in these papers and relied upon by Dr. Leonard 12 assumes that every person over ten is certainly a 13 candidate to own a mobile handset. I don't believe 14 that that's a reasonable assumption. 15 Q. Well, being a candidate on a mobile 16 handset is different from actually owning a mobile 17 handset, isn't it? 18 A. It is. 19 Q. So it's not true to say that Dr. Leonard 20 is assuming that every person in the United States 21 over the age of ten own a mobile handset as part of 22 his analysis. 23 A. You could tweak it to say, this basis 24 assumes that every person in the U.S. over the age 25 of ten is a candidate to own a mobile handset. I</p>	<p style="text-align: right;">Page 261</p> <p>1 this topic were fairly solicited for their best 2 available on evidence on every customer. But, yes, 3 there were discussions of customers that were 4 candidates for a Java license. 5 Q. You -- you didn't use the actual Java ME 6 licensing revenue data as the basis for your 7 lost-profits calculation, did you? 8 A. I believe that I did, and that my 9 calculation was the distinction between actual and 10 projected so a basis, a fundamental basis of my 11 calculation was the actual experience. 12 Q. But you didn't look at it on a 13 customer-by-customer level and estimate the lost 14 profits at that level, correct? 15 A. Well, I did not create a new schedule. 16 But my recollection is that the forecast and the 17 actual information that I relied upon did go down 18 to a customer-by-customer level showing actual and 19 expected revenues, and even highlighting for the 20 expected forecast certain customers that it 21 believed would be at risk. 22 Q. To what extent, if at all, did you use 23 the testimony of Oracle witnesses about specific 24 Java ME licensing deals they believe had been 25 impeded by Android to estimate lost profits?</p>

66 (Pages 258 - 261)

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<p style="text-align: right;">Page 262</p> <p>1 A. I think it's fair to say that I relied 2 upon those conversations in part to demonstrate 3 what is generally referred to as the fact of 4 damage. But I utilize the projections and actual 5 historical accounting to determine the quantum of 6 damages.</p> <p>7 MR. PURCELL: I would like to mark this 8 as the next exhibit in order.</p> <p>9 (Exhibit 1578 was marked for identification by 10 the court reporter and is attached hereto.)</p> <p>11 Q. (By Mr. Purcell) Mr. Malackowski, is 12 Exhibit 1578 the Sun strategic forecast document 13 that you relied on in estimating lost profits?</p> <p>14 A. Yes, as noted specifically on 15 Exhibit 12.3 to my first report, footnote 1, I cite 16 this document by Bates number.</p> <p>17 Q. And if you turn to the second tab of 18 Exhibit 1578 --</p> <p>19 A. I don't know what you mean by "second 20 tab."</p> <p>21 Q. I think it's probably the second page on 22 the printout.</p> <p>23 Does this page contain the four forecasts 24 that you looked at in connection with your 25 lost-profits opinion?</p>	<p style="text-align: right;">Page 264</p> <p>1 for 2009 and 2010 of 129.7 million, and 2 144.4 million.</p> <p>3 Do you see that?</p> <p>4 A. Those are the numbers we were just 5 discussing.</p> <p>6 Q. Exactly.</p> <p>7 And then you say, the notes to the 8 forecast list, quote, major shift to open source, 9 end quote, as a consideration.</p> <p>10 Do you see that?</p> <p>11 A. I do.</p> <p>12 Q. Now, if you look at the four forecasts on 13 the page in Exhibit 1578, the note, "major shift to 14 open source" isn't a note to the strategic forecast 15 that you used, correct?</p> <p>16 A. Which is exactly why I selected it, yes.</p> <p>17 Q. It is used as the forecast to the low --</p> <p>18 A. Correct.</p> <p>19 Q. -- a note on the low forecast, correct?</p> <p>20 A. Correct.</p> <p>21 Q. All right. So what's the significance of 22 that?</p> <p>23 A. So I considered the four forecasts that 24 are shown on this page. This document present 25 effectively two paradigms for growth. One is a</p>
<p style="text-align: right;">Page 263</p> <p>1 A. It contains four forecasts that I did 2 look at. I looked at other others as well.</p> <p>3 Q. And the first forecast on the page, the 4 one labeled "Strategic Forecast," that's the one 5 that you used in your lost-profits calculation, 6 correct?</p> <p>7 A. Yes.</p> <p>8 Q. And the strategic forecast runs through 9 fiscal year 2010, correct?</p> <p>10 A. Yes.</p> <p>11 Q. And for 2009, it projects Java ME 12 licensing revenue of \$129.7 million?</p> <p>13 A. 129.696, correct.</p> <p>14 Q. And for fiscal year 2010, it projects 15 just under \$140.4 million, correct?</p> <p>16 A. Yes, sir.</p> <p>17 Q. Can you turn to paragraph 186 of your 18 opening report -- keep that open, I want to ask you 19 about the two documents in conjunction. It's 20 page 74 and 75.</p> <p>21 A. Which paragraph?</p> <p>22 Q. 186.</p> <p>23 A. Yes.</p> <p>24 Q. So you say, Sun strategic forecast 25 created in 2008 projected Java ME licensing revenue</p>	<p style="text-align: right;">Page 265</p> <p>1 paradigm which involves some degree of open 2 sourcing, and one that is strategic that does not.</p> <p>3 Based upon the evidence of record, in 4 particular the things that we cited to earlier 5 today, the fact that the Java experiment with open 6 sourcing and an discussions with OEMs regarding the 7 copyleft issue indicated that open sourcing was 8 going to be the way this market strategically 9 developed.</p> <p>10 In looking at the four forecasts, the 11 difference between the strategic forecast at the 12 top and the low, medium and high forecasts at the 13 bottom is the extent to which op- -- there's a 14 shift to open source.</p> <p>15 So the low forecast has a major shift to 16 open source, a large shift open source would reduce 17 Java; the medium forecast has a moderate to shift 18 to open source, it's in the middle; and the high 19 forecast has a minor shift to open source, less 20 movement to open source, more Java licensing 21 revenues.</p> <p>22 And so I concluded that the right 23 document to use for my purposes is the strategic 24 forecast. And the reason for that is, it does not 25 impute consideration of the movement to open source</p>

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<p style="text-align: right;">Page 266</p> <p>1 which I find consistent with the other evidence of 2 record.</p> <p>3 Q. You also cite in the end of paragraph 186 4 a discussion with Michael Ringhofer?</p> <p>5 A. Yes.</p> <p>6 Q. What did Mr. Ringhofer tell you supports 7 the opinion conveyed in paragraph 186?</p> <p>8 A. It was actually discussion that you and I 9 had just had, what is the distinction in these 10 various forecast, are this -- are these the 11 forecasts that were considered by management in 12 their decision-making.</p> <p>13 Q. Now, in 2008, when the forecast was made, 14 Android had already been released, correct?</p> <p>15 A. Yes.</p> <p>16 Q. And Sun was aware of the release of 17 Android when it created this forecast.</p> <p>18 A. I think that is fair.</p> <p>19 Q. Now, the forecast, as we mentioned, only 20 goes through fiscal year 2010, but you estimated 21 Java ME licensing revenue for subsequent years 22 based on the same document, correct?</p> <p>23 A. Yes, sir.</p> <p>24 Q. And you did that by taking the roughly 25 8 percent growth rate between fiscal 209 --</p>	<p style="text-align: right;">Page 268</p> <p>1 my report.</p> <p>2 Q. You mention in your report that the 3 revenue growth rate for Java ME licensing, from 4 2009 to 2010, the best-estimate forecast in this 5 document is larger than the one in Exhibit 1578, 6 which you actually used, correct?</p> <p>7 A. Yes, sir.</p> <p>8 Q. And you say that you use the forecast you 9 actually used because it was conservative, correct?</p> <p>10 A. In part, and also because the document we 11 are now referring to, Exhibit 1579, specifically 12 takes into account and makes quantitative 13 adjustments for competition with Android. And in 14 my opinion, in measuring the lost sales for the 15 but-for world for actual harm, we don't want to 16 infect our projection with the infringement.</p> <p>17 Q. Where does the best-estimate scenario in 18 Exhibit 1579 take account of Android?</p> <p>19 A. If you look to footnote 402 of my report, 20 on page 75, I make specific reference to the 21 portions of this document that provide my basis for 22 the Android as competing technologies, specifically 23 the quote, "competing technologies (Symbian, 24 Android) provide operators with credible 25 alternatives to Java."</p>
<p style="text-align: right;">Page 267</p> <p>1 2009 and fiscal 2010, and assuming that same 2 year-over-year growth rate through 2015; is that 3 right?</p> <p>4 A. Yeah -- yes, sir.</p> <p>5 Q. Now, you also mention in the following 6 paragraph, paragraph 187, another forecast that you 7 looked at, correct?</p> <p>8 A. Yes, sir.</p> <p>9 Q. And that's a 2008 presentation titled, 10 "Java and Wireless Business Review."</p> <p>11 And you say it contains scenarios of 12 Java ME revenue forecasts, correct?</p> <p>13 A. Yes, sir.</p> <p>14 Q. And the one you call out is the 15 best-estimate forecast in that -- that 16 presentation, correct?</p> <p>17 A. Yes, sir.</p> <p>18 MR. PURCELL: Let's mark this as 1579.</p> <p>19 (Exhibit 1579 was marked for identification by 20 the court reporter and is attached hereto.)</p> <p>21 Q. (By Mr. Purcell) Mr. Malackowski, could 22 you look at Exhibit 1579, and tell me whether 23 that's the document that you are referring to in 24 paragraph 187 of your opening report?</p> <p>25 A. Yes. It is as noted in footnote 401 to</p>	<p style="text-align: right;">Page 269</p> <p>1 Q. Mr. Malackowski, if you go back to the 2 document itself, the quote that you just read is 3 not on the best-estimate slide, correct?</p> <p>4 A. No. I believe it's on Scenario 2.</p> <p>5 Q. Right. And that's an alternate factual 6 scenario with less favorable assumptions for Sun, 7 correct?</p> <p>8 A. Yes.</p> <p>9 Q. So there's nothing in the best-estimate 10 forecast, at least on its face, that accounts for 11 Android, correct?</p> <p>12 A. Well, the document generally, when it 13 discusses its view of the market prior to 14 specifically preparing the various scenarios, makes 15 clear that its assessment of the market includes 16 Android. I would direct you to page 4 of the 17 document as an example of that.</p> <p>18 Q. The other forecast document that you 19 actually used, Exhibit 1578, also generally takes 20 account of Android through its various assumptions 21 about a major, minor, or moderate shift to open 22 source, correct?</p> <p>23 A. That document is not specific to Android 24 as the competitive threat. But regardless, even if 25 it was, only further reason to point to the</p>

68 (Pages 266 - 269)

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<p>1 can repeat this --</p> <p>2 Q. Well, what is the fundamental difference?</p> <p>3 A. The fundamental difference is that the</p> <p>4 strategic forecast does not have a precursor</p> <p>5 section that talks about Android as a competitive</p> <p>6 effect in the marketplace. The fundamental</p> <p>7 difference is, in my discussions with Oracle/Sun</p> <p>8 personnel, I confirmed that this was the correct</p> <p>9 forecast used in my effort to isolate out those</p> <p>10 effects. The difference is that in this second</p> <p>11 document, the document talks generally about the</p> <p>12 presence of Android in the marketplace.</p> <p>13 Now, you may disagree with my</p> <p>14 interpretation, but I think it's quite clear the</p> <p>15 basis of my selection.</p> <p>16 Q. Well, you said a couple of things. I</p> <p>17 mean, first off in 1578, you agree that the very</p> <p>18 same page containing the strategic forecast also</p> <p>19 talks about various scenarios involving a major</p> <p>20 shift to open source through Android, correct?</p> <p>21 A. I do.</p> <p>22 Q. All right. So why did Oracle personnel</p> <p>23 tell you to use the strategic forecast in</p> <p>24 Exhibit 1578 rather than the best-estimate forecast</p> <p>25 in Exhibit 1579?</p>	<p>Page 274</p> <p>1 documents was grossly understating the expectations</p> <p>2 of Java; and that, in particular, the 8 percent</p> <p>3 growth rate was way too low.</p> <p>4 Q. Did you ask them why the projection was</p> <p>5 the Java ME licensing revenue would decline in</p> <p>6 fiscal 2012, in Exhibit 1579?</p> <p>7 A. Well, we discussed the fact that it</p> <p>8 included the assessment of competition including</p> <p>9 Android.</p> <p>10 Q. So they told you that, they told you that</p> <p>11 the best-estimate forecast included the effect of</p> <p>12 competition from Android?</p> <p>13 A. Again, I -- I don't want to stretch in my</p> <p>14 recollection to your question, so I -- I will try</p> <p>15 to be as fair as possible. I don't know that we</p> <p>16 had that exact conversation. I know we had the</p> <p>17 conversation over the work that I had done and the</p> <p>18 conclusions that I had reached to verify that the</p> <p>19 approach I was taking was the best approach.</p> <p>20 They confirmed that that was the best</p> <p>21 approach. Their only criticism of what I had done</p> <p>22 was that I was underestimating significantly the</p> <p>23 growth rate.</p> <p>24 Q. Did you ask them why the Java licensing</p> <p>25 revenue was protected to decline in fiscal 2012, in</p>
<p>1 MS. HURST: Object to the form.</p> <p>2 THE DEPONENT: My discussions with Oracle</p> <p>3 personnel were to confirm the selection of the</p> <p>4 projection that I used for the reason that I was</p> <p>5 using it. We had this essential conversation.</p> <p>6 Q. (By Mr. Purcell) Did you ask them</p> <p>7 whether you ought to use the best-estimate forecast</p> <p>8 in Exhibit 1579?</p> <p>9 A. No. I think I told them, it was my</p> <p>10 conclusion that I'm going to use that, did they</p> <p>11 concur with that, are there any issues that would</p> <p>12 be raised with that.</p> <p>13 Q. Did you show them the best-estimate</p> <p>14 forecast in Exhibit 1579, and ask them about the</p> <p>15 pros and cons of using one versus the other?</p> <p>16 A. We had the document, yes.</p> <p>17 Q. Did you show it to them and ask them</p> <p>18 which one was the more appropriate forecast to use?</p> <p>19 A. Effectively, yes. I can't tell you that</p> <p>20 I used those exact words.</p> <p>21 Q. And so why did they tell you that you</p> <p>22 should use Exhibit 1578, rather than Exhibit 1579?</p> <p>23 A. Because they concurred with my</p> <p>24 interpretation of the documents. They actually, to</p> <p>25 be direct, thought that my interpretation of the</p>	<p>Page 275</p> <p>1 Exhibit 1579?</p> <p>2 A. I can't tell you that I specifically</p> <p>3 asked them that question. I -- I don't recall.</p> <p>4 Q. Did you run an alternative calculation</p> <p>5 with an alternative growth rate based on</p> <p>6 Exhibit 1579, given the decline in Java ME</p> <p>7 licensing revenue in fiscal 2012?</p> <p>8 A. I ran an alternative calculation with the</p> <p>9 alternative growth rate. I wouldn't say that the</p> <p>10 growth rate anticipated the decline, but</p> <p>11 footnote 403 to my report describes the result of</p> <p>12 that calculation which, as I referred to earlier,</p> <p>13 would sig- -- significantly increase the damage</p> <p>14 figures.</p> <p>15 Q. Well, I understand the growth rate</p> <p>16 between fiscal '09 and fiscal 2010, on</p> <p>17 Exhibit 1579, would increase damage. My question</p> <p>18 is different.</p> <p>19 It's: Did you run an alternative</p> <p>20 calculation accounting for the aggregate change in</p> <p>21 Java ME licensing revenue between fiscal '09, '10,</p> <p>22 '11 and '12?</p> <p>23 A. No. Because in my opinion, the decline</p> <p>24 in revenues as reflected in that document are a</p> <p>25 result of the competition with Android, and so that</p>

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<p style="text-align: right;">Page 290</p> <p>1 Q. (By Mr. Purcell) But ME is not suited 2 for use in even the 2007- or 2008-style iPhone, 3 correct?</p> <p>4 A. Not within an iPhone, no.</p> <p>5 Q. Well, not within a phone that has the 6 functionality of an iPhone, with the applications 7 and the full Internet browsing, and all the other 8 features, touch screen --</p> <p>9 MS. HURST: Object to the form.</p> <p>10 THE DEPONENT: I think we are now at a 11 technical level of understanding, for example, what 12 was a BlackBerry capable of, along those lines, 13 versus the first iPhone.</p> <p>14 I mean, people forget, the first iPhone 15 was not particularly successful, that it took time 16 to build up the tremendous success that it had. I 17 would defer that comparison to the technical 18 experts. I haven't made that comparison.</p> <p>19 Q. (By Mr. Purcell) Well, isn't that an 20 important component of your lost-profits analysis, 21 a conclusion that these OEMs actually would have 22 wanted to license a Sun or Oracle Java platform for 23 use in the phones they were building?</p> <p>24 A. Well, I think that's important. I think 25 that is true. I think that's very different than</p>	<p style="text-align: right;">Page 292</p> <p>1 would add that within my report, we don't just have 2 to take my conclusion for it, that there are 3 documents that I refer to by -- or from Sun or -- 4 but importantly from Google Android, where they 5 explain that, by entering into the marketplace, Sun 6 is going to lose from their existing licensing 7 platform, which was ME at the time, hundreds of 8 millions of dollars.</p> <p>9 I think one of the examples that I cite, 10 which was a quote from Google, was a recognition 11 that the impact to Sun from the Android launch, as 12 it relates to a decline in their current licensing 13 program, would be over a billion dollars.</p> <p>14 So we have the contemporaneous forecast, 15 incredibly conservative growth rates, and 16 confirmation that those growth rates were 17 conservative in light of what happened, and 18 confirmation by both parties in suit that they 19 recognized the harm to Sun would be significant and 20 exceed, in some instances, the damages that I have 21 calculated.</p> <p>22 Q. You didn't do a customer-by-customer 23 analysis of Sun's Java ME licensees to confirm 24 whether their business plans included making the 25 kinds of handsets for which Java ME was suited,</p>
<p style="text-align: right;">Page 291</p> <p>1 the question you asked me before.</p> <p>2 Q. How, if at all, does your lost-profit =s 3 analysis account for the shift of the market from 4 feature phones to smartphones?</p> <p>5 A. To some extent I think it does not, in 6 the sense that my calculation is overly 7 conservative. I believe that, had there been 8 perfect foresight as to the rapidly evolving 9 marketplace, in particular the consumer use of 10 that, that Sun's actual profits -- actual loss 11 would have been greater, but perhaps largely 12 measured or additionally measured with the 13 SE licensing platform.</p> <p>14 I think that the ME lost-profits 15 calculation that I advance are conservative in that 16 regard and take into account that risk because of 17 the growth rate that I used. I mean, a growth rate 18 of 8 percent is incredibly conservative in light of 19 the mobile marketplace that is -- that actually 20 occurred.</p> <p>21 Q. And how does the 8 percent year-over-year 22 growth rate, from 2009 to 2015, compare to the 23 growth rate of the feature phone market over that 24 time period?</p> <p>25 A. Well, it's significantly less. And I</p>	<p style="text-align: right;">Page 293</p> <p>1 correct?</p> <p>2 A. Well, you have asked me that question, 3 and just to briefly recap the forecast that I use 4 include -- included customer-specific buildup. And 5 the fact of damage exemplars that I cite, as well 6 as those cited by Dr. Jaffe, I think would speak 7 directly to the customer-specific analysis of your 8 question.</p> <p>9 Q. But did you look at, for instance Samsung 10 or Nokia specifically and analyze the extent to 11 which they were interested in releasing handsets 12 for which Java ME would be suited during the 13 2009-to-2015 time frame?</p> <p>14 MS. HURST: Object to form.</p> <p>15 THE DEPONENT: Both of those exam- -- 16 examples are discussed in my report. With respect 17 to Samsung specifically, there's discussion of the 18 ME licensing program from Sun going from 19 44 million-dollar term payment to a million-dollar 20 term payment and the reason for that decline.</p> <p>21 The reason was not because Samsung no 22 longer considered the Sun technology that it was 23 licensing to be sufficient. The reason was, 24 Samsung was dropping Sun to pick up Android.</p> <p>25 The second example that you referenced</p>

74 (Pages 290 - 293)

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<p style="text-align: right;">Page 294</p> <p>1 was Nokia. And there we have the specific 2 information that Nokia was a large Sun ME licensee, 3 and considering for future use SE as well.</p> <p>4 Q. (By Mr. Purcell) And that phone never 5 got released.</p> <p>6 A. That phone never got released.</p> <p>7 Q. Now, isn't it the case that Samsung very 8 well might have decided to leave Java for Android 9 because Java did not offer Samsung the kind of 10 operating system it needed to make a smartphone?</p> <p>11 A. I have seen no evidence that would 12 suggest that. I would be speculating based upon 13 this record.</p> <p>14 Q. So you don't provide any quantification 15 of lost profits based on Project Acadia, correct?</p> <p>16 A. Well, as I describe in my report, 17 Project Acadia is an SE platform, as I understand 18 it. I discussed my view that, from a 19 fact-of-damage point of view, I believe that there 20 were damages, but that I have not been able to 21 quantify them, and I believe they speak to the 22 nexus to the profit-apportionment calculations.</p> <p>23 Q. Do you intend to tell the jury in this 24 case that if -- but for Android, Sun would have 25 made 8.8 billion dollars in profit in</p>	<p style="text-align: right;">Page 296</p> <p>1 Media No. 6 in the deposition of James Malackowski. 2 Q. (By Mr. Purcell) Mr. Malackowski, you 3 disagree with Dr. Leonard's opinion that around the 4 time of Android's release, Sun's Java platforms had 5 run stagnant, correct?</p> <p>6 A. I would say, it's more accurate to say 7 that I don't think that that opinion or that issue 8 was one of significance. But in the larger tenure 9 of the context of this case, I -- I do disagree 10 with it.</p> <p>11 Q. And in any event, you didn't take that 12 potential stagnancy into account in adjusting your 13 lost profits calculation.</p> <p>14 A. Correct, which would have been a 15 but-for world which, I think, would not have 16 experienced any of the stagnation that Dr. Leonard 17 addresses. Again, remember that, at the time, Java 18 was in 80 percent of all phones and had as its 19 customer the largest phone OEM in the world.</p> <p>20 Q. Even at the time Android was released, 21 before that was a competitive threat to Sun, there 22 are Sun documents that discuss the stagnation of 23 the Java platform, correct?</p> <p>24 A. So there are -- I think it's important to 25 understand the context of those documents, and</p>
<p style="text-align: right;">Page 295</p> <p>1 Project Acadia?</p> <p>2 A. I have not discussed my testimony with 3 counsel, though I don't believe it will extend 4 beyond what we have talked about today and the 5 scope of my reports. So that's not something I 6 would anticipate saying.</p> <p>7 Q. Do you anticipate telling the jury in 8 this case that but for Android, Sun and Oracle 9 would have developed a comparably successful 10 full-stack mobile operating system to Android?</p> <p>11 A. I don't believe that opinion is contained 12 within my report. If asked -- for example, if you 13 asked me on cross examination, I would certainly 14 answer that question. But I don't think that would 15 be within the scope of my direct, though counsel 16 and I haven't talked about that.</p> <p>17 MR. PURCELL: All right. Let's take a 18 break, and I may be able to shortcut some of the 19 rest of this.</p> <p>20 MS. HURST: Great.</p> <p>21 THE VIDEOGRAPHER: We are off the record 22 at 4:00 o'clock here.</p> <p>23 (Recess taken.)</p> <p>24 THE VIDEOGRAPHER: We are back on the 25 record at 4:14. This marks the beginning of</p>	<p style="text-align: right;">Page 297</p> <p>1 perhaps you have them and we can mark them. My 2 recollection is, they're generally engineering 3 records. And so in my experience, to have 4 engineers say, "We need more R&D dollars to 5 continue to develop," that's not surprising.</p> <p>6 I don't recall those documents being 7 customer sales or marketing records.</p> <p>8 Q. If there were documents like that from 9 sales or marketing employees, that would be more 10 meaningful to you?</p> <p>11 A. It would be more meaningful, though still 12 I would put it in the context of normal business 13 course. Even salespeople, if you can give them a 14 new whistle or feature, they -- they want it, and 15 it's not inapplicable for them to ask for it.</p> <p>16 But in the context of this discussion, 17 given the penetration of Android, I don't believe 18 that stagnation is an issue that requires 19 adjustment in my lost-profits calculation.</p> <p>20 Q. So you made no adjustment in your 21 lost-profits calculation because of these 22 contemporaneous assessments by Sun personnel that 23 their product offering, the Java platforms, had 24 grown stagnant.</p> <p>25 A. No explicit adjustment. I suppose at</p>

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<p>1 Android?</p> <p>2 A. No.</p> <p>3 Q. What advantages did Google get with</p> <p>4 regard to TAC for carriers who enabled Android</p> <p>5 versus carriers who enabled non-Android such as</p> <p>6 Apple devices?</p> <p>7 A. It was more economically --</p> <p>8 Q. We're making technical adjustments,</p> <p>9 Mr. Malackowski.</p> <p>10 A. It was more -- it was economically more</p> <p>11 beneficial for Google to have traffic flow on the</p> <p>12 Android platform where it was not required to share</p> <p>13 TAC with distribution partners like Apple. So the</p> <p>14 whole reason for developing Android was to allow</p> <p>15 Google to capture those economics.</p> <p>16 And that's why, in part, I, as an</p> <p>17 apportionment metric, have attempted to value the</p> <p>18 contributions of the copyrights to creating that</p> <p>19 proprietary platform.</p> <p>20 Q. Okay. Let's go to paragraph 162 and 163.</p> <p>21 Does or did Android 1 run on feature</p> <p>22 phones or smartphones?</p> <p>23 A. So again, I believe there's a continuum</p> <p>24 in that definition, but my understanding is that</p> <p>25 Android 1 was trying to capture and target the</p>	<p>Page 326</p> <p>1 and dictate the technology that would be used</p> <p>2 within their network. And so to that extent they</p> <p>3 were a customer target of Java.</p> <p>4 Later on that completely changed. The</p> <p>5 market today is such that the OEMs are making more</p> <p>6 and more of those decisions.</p> <p>7 Q. All right. Now I'm directing your</p> <p>8 attention to paragraph 191 and including figure 24.</p> <p>9 A. Yes, sir.</p> <p>10 Q. Why the increase in revenue between 2011</p> <p>11 and 2012, which is well after Android -- Android</p> <p>12 had been introduced?</p> <p>13 A. Well -- oh, in the historical actual</p> <p>14 revenue?</p> <p>15 Because when Android was first</p> <p>16 introduced, it not the -- the -- the -- the</p> <p>17 significant out of the gate volume success that you</p> <p>18 might think it to be. It took awhile. It started</p> <p>19 with one phone, with one carrier, and it took</p> <p>20 awhile for it to build up. So there was</p> <p>21 marketplace transition that occurred.</p> <p>22 Also, as part of that marketplace</p> <p>23 transition, many of these Java license agreements</p> <p>24 were multi-year agreements. So there is a period</p> <p>25 of time in which the marketplace transition to the</p>
<p>Page 327</p> <p>1 broader global marketplace. So on the continuum</p> <p>2 closer to feature phones than the ultimate</p> <p>3 smartphone. It was a simpler version, but I think</p> <p>4 it was characterized as a -- maybe a low-end</p> <p>5 smartphone might be the best description.</p> <p>6 Q. Are the phones that you describe in these</p> <p>7 paragraphs 162 and 163, are -- are those feature</p> <p>8 phones or smartphones?</p> <p>9 A. I -- I think the best way to describe</p> <p>10 them are low-end smartphones.</p> <p>11 Q. So they would be smartphones, but near --</p> <p>12 in the continuum near the feature phones?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. Let's move on to paragraph 190.</p> <p>15 Now, you indicate that in -- that by</p> <p>16 2010, Spring, Verizon, AT&T and T-Mobile had</p> <p>17 increased their investment in Java ME in favor of</p> <p>18 Android. We understand that these are all the</p> <p>19 carriers.</p> <p>20 Is this -- is it the carriers who were</p> <p>21 licensing Java ME?</p> <p>22 A. At the time, the -- if you could put it</p> <p>23 in context, at the time the carriers were in</p> <p>24 control of the marketplace. It's often referred to</p> <p>25 as the wall of garden. They were able to direct</p>	<p>Page 329</p> <p>1 Android solution -- it didn't happen, you know,</p> <p>2 overnight. And I think the data reflects that.</p> <p>3 Q. Why was there a very drastic decline</p> <p>4 between 2014 and 2015, again, well after Android --</p> <p>5 Android had been introduced?</p> <p>6 A. Well, really the drastic decline starts</p> <p>7 in 2013. And you see 2012 is kind of the high</p> <p>8 point of the market. I think, again, confirming</p> <p>9 that there were preexisting contracts in place,</p> <p>10 that there was a period of time after the Android</p> <p>11 introduction where the market would turn and did,</p> <p>12 in fact, turn to Android as the solution.</p> <p>13 It's just simply the stickiness of this</p> <p>14 market and the time that's required to make these</p> <p>15 changes.</p> <p>16 Q. In your opinion, does that explain how</p> <p>17 the adoption of Android gave rise to these revenue</p> <p>18 numbers?</p> <p>19 A. That explains why -- how the adoption of</p> <p>20 Android affected these revenue numbers, yes, that</p> <p>21 the -- the timing that you see of these numbers</p> <p>22 with some continued increase after the introduction</p> <p>23 of Android, but then a reversal of that some couple</p> <p>24 years later is very consistent with the scope of my</p> <p>25 analysis and understanding of Android's entry into</p>

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<p style="text-align: right;">Page 342</p> <p>1 content cost of sales could properly be allocated 2 to other Android-related revenues, such as Android 3 ads, or alternatively, to Android-related 4 advertising or promotional expense.</p> <p>5 Did you make -- and my question is, did 6 you make any adjustments consistent with this 7 statement?</p> <p>8 A. Yes. In that my calculation of 9 ad-related TAC is, I believe, consistent with this 10 statement, and the long discussion that we had 11 earlier today about my basis for concluding what 12 was and was not included in the P&L.</p> <p>13 Q. Now, refer to paragraph 307, please.</p> <p>14 A. Yes, sir.</p> <p>15 Q. And you say the portion of the cost of 16 sales representing TAC payments to carrier, 17 distribution partners could properly be allocated 18 to other Android-related revenue, such as Android 19 ads, or alternatively to Android-related 20 advertising or promotional expense.</p> <p>21 Did you make any adjustments consistent 22 with that statement, Mr. Malackowski?</p> <p>23 A. I -- I think in some respects this is an 24 identical statement to the one above.</p> <p>25 Q. Okay.</p>	<p style="text-align: right;">Page 344</p> <p>1 tied, in my view, very closely to work that I do in 2 the context of, for example, commercial success, 3 where the damage expert's assignment is to 4 understand the contribution of the technology to 5 the profits or economics of the business.</p> <p>6 And, in particular, in the patent case 7 where this comes up very frequently, the 8 Georgia-Pacific criterion require that the damages 9 expert consider the value of the invention at issue 10 as compared to old modes and devices or alternative 11 technologies. So this is the type of analysis that 12 I have done generally for 30-plus years.</p> <p>13 So with that background, the answer to 14 your question of what does the damages expert need 15 to consider, I think they need to consider the 16 scope of the intellectual property that's at issue, 17 its contribution to the business platform, and then 18 any other evidence in the case of an apportionment 19 of other technologies that are contributing and 20 metrics that might explain or allow you to segment 21 the individual contributions.</p> <p>22 Q. Is there -- and I know you're not an 23 economist, but is there an economic or business 24 test for commingling, in your opinion, Dr. -- or 25 Mr. Malackowski?</p>
<p style="text-align: right;">Page 343</p> <p>1 A. And it's consistent with the analysis 2 that we talked about earlier today confirmed by the 3 testimony of Mr. Gold.</p> <p>4 Q. And so your -- your answer would be the 5 same as previously?</p> <p>6 A. Yes.</p> <p>7 Q. Now, we're done with your first report, 8 so I'd like to move on to the second report and 9 paragraph 18.</p> <p>10 This is your -- this is Exhibit 1577, 11 which is your February 29th, 2016 report; is that 12 correct, Mr. Malackowski?</p> <p>13 A. Yes, sir.</p> <p>14 Q. Okay. And I'm referencing you to 15 paragraph 18 of that.</p> <p>16 Now I know that during Mr. Purcell's 17 questioning you talked about commingling, and my 18 specific question here -- and I -- I direct your 19 attention to the paragraph and you read whatever 20 you want to read is, does a damages expert need to 21 understand -- or strike that.</p> <p>22 What does a damages expert need to 23 understand or know in order to apply the legal 24 theory of commingling?</p> <p>25 A. So the legal theory of commingling is</p>	<p style="text-align: right;">Page 345</p> <p>1 A. There is no economic or legal test in the 2 sense of 4 factors or 15 factors or an equation. 3 My understand is that it is a judgment 4 and opinion based upon the expert's review of the 5 evidence of the type that I described.</p> <p>6 Q. All right. Mr. Malackowski, assuming 7 that this; i.e., commingling, is a legal doctrine, 8 how is it to be applied by the damages expert?</p> <p>9 A. A damages expert job requires application 10 of legal doctrines in -- in most cases, especially 11 intellectual property cases. For example, the 12 doctrine of the Panduit criteria for lost profits 13 or the Georgia-Pacific criteria for reasonable 14 royalty. The doctrine of commercial success for 15 the equities of -- of an injunction or secondary 16 indications of non-obviousness.</p> <p>17 This is no different than that. This 18 requires an understanding of the contribution of 19 the intellectual property to the products at issue. 20 It further recognizes a need to assess whether 21 there is other quantitative ways to separate the 22 contributions of various technologies, same skill 23 set, same application of experience informed by the 24 business records and the technical expert opinions.</p> <p>25 Q. Mr. Malackowski, doesn't commingling</p>

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<p style="text-align: right;">Page 346</p> <p>1 occur whenever there are synergies?</p> <p>2 A. Well, I think that when there is</p> <p>3 commingling, there could be synergies, but not</p> <p>4 necessarily so. But generically speaking, I -- I</p> <p>5 think you could have synergies. You could have</p> <p>6 unexpected consequences from your original plan.</p> <p>7 For example, in this case, unexpected</p> <p>8 activities where the growth of the wireless market</p> <p>9 greater than any expectations, the migration of</p> <p>10 demand to consumer applications and not just</p> <p>11 business enterprise applications.</p> <p>12 Google benefited from those unexpected</p> <p>13 events and earned profits as a result of those</p> <p>14 because of their reliance on the copyrights at</p> <p>15 issue. But for the purpose of disgorgement, you</p> <p>16 need to take an ex post accounting of that that and</p> <p>17 you need to remove the benefits that Google</p> <p>18 received as a result of its reliance on the</p> <p>19 copyright, even though there were external or</p> <p>20 unexpected impacts.</p> <p>21 Q. Can you give us examples where there is</p> <p>22 no commingling?</p> <p>23 A. Well, the -- the best example is when</p> <p>24 you're talking about a product that's driven by a</p> <p>25 single technology or form of intellectual property.</p>	<p style="text-align: right;">Page 348</p> <p>1 central to that economic benefit, I than challenged</p> <p>2 the -- the methodology to say, well, we know</p> <p>3 that there's a platform benefit associated with the</p> <p>4 copyrights and that's 35.6 percent.</p> <p>5 We know we're going to leave Google with</p> <p>6 64 percent. But can we break down that</p> <p>7 35.6 percent even finer to specifically identify</p> <p>8 the contribution of the copyrights at issue as</p> <p>9 opposed to some technology contributed by Google.</p> <p>10 And what I concluded is that, no, we</p> <p>11 cannot because of the commingling. There isn't a</p> <p>12 way to break those things out. And so as I</p> <p>13 understand the proper method and the case law,</p> <p>14 the -- that is to the benefit of the defendant in</p> <p>15 the sense that that means that all of those</p> <p>16 commingled profits should be awarded in the form of</p> <p>17 disgorgement after taking into account applicable</p> <p>18 cost.</p> <p>19 Q. Now, Mr. Malackowski, in that last answer</p> <p>20 you used the phrase or the word "gated" item.</p> <p>21 What did you mean by that? How do you</p> <p>22 define that?</p> <p>23 A. Yeah, that -- that's really my language</p> <p>24 that sort of picks up on this notion that there was</p> <p>25 a critical window of opportunity, and it keeps</p>
<p style="text-align: right;">Page 347</p> <p>1 When I teach this subject, we always talk</p> <p>2 about the distinction between, frankly,</p> <p>3 smartphones, which are a very aggregated platform</p> <p>4 or pharmaceuticals. In pharmaceuticals, you rarely</p> <p>5 have a commingling issue because the technology at</p> <p>6 issue, in most cases patents. A single patent</p> <p>7 drives a compound of the drug. So that's the</p> <p>8 genetic sample that we use.</p> <p>9 In copyrights, I think it might be more</p> <p>10 applicable to look at the music industry, right.</p> <p>11 If you have a copyright on a song, there's usually</p> <p>12 not a lot of commingling at issue. There might be</p> <p>13 apportionment across the other songs in the album,</p> <p>14 but not necessarily commingling.</p> <p>15 Q. Okay. Now, you may have mentioned this,</p> <p>16 but I'm going to ask you again anyway.</p> <p>17 How is the legal theory of commingling</p> <p>18 relevant to the opinion that you've expressed in</p> <p>19 paragraph 17?</p> <p>20 A. Understanding that the copyrights at</p> <p>21 issue were a gating feature and an enabling of</p> <p>22 Google to reach its objective of capturing the</p> <p>23 platform value for Android; i.e., as opposed to</p> <p>24 like an Apple, for example.</p> <p>25 Understanding that these copyrights were</p>	<p style="text-align: right;">Page 349</p> <p>1 reminding me to go back to the fact that it's not</p> <p>2 just that the copyrights at issue were important.</p> <p>3 It's that because of the unique window of</p> <p>4 opportunity to enter this market, given all the</p> <p>5 competitive dynamics around it, they were</p> <p>6 critically important at the time. That without</p> <p>7 access to these copyrights, there would not be the</p> <p>8 revenue and profit generation that there was, in my</p> <p>9 opinion.</p> <p>10 Q. And that's what you mean by gated?</p> <p>11 A. Yes. There's -- gated is not a term of</p> <p>12 art or a term of case law.</p> <p>13 Q. It's not -- so it's -- it's</p> <p>14 Mr. Malackowski's term?</p> <p>15 A. Yes.</p> <p>16 Q. Okay. And you've defined what you meant</p> <p>17 by that?</p> <p>18 A. Yes.</p> <p>19 Q. Now, let's move to paragraph 21, please.</p> <p>20 Mr. Malackowski, are you assuming that</p> <p>21 each of the bullet points is a fact, or are you</p> <p>22 testifying that each of them is a fact?</p> <p>23 Or do you want me to break that down into</p> <p>24 two questions?</p> <p>25 A. No, I understand -- I understand. Let me</p>

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<p>1 look.</p> <p>2 I would say that each of these facts are</p> <p>3 really the conclusions that I reached from a review</p> <p>4 of the record and opinions that I hold. I believe</p> <p>5 them all to be factually true, but ultimately they</p> <p>6 are also consistent with my opinions.</p> <p>7 Q. Okay. So each of these bullet points you</p> <p>8 believe to be true. But are you assuming that</p> <p>9 they're true or do you have independent reason to</p> <p>10 believe they're true?</p> <p>11 A. I believe each of these bullet points</p> <p>12 are supported by my independent analysis and</p> <p>13 fact-finding allowing me to conclude they are true.</p> <p>14 Q. Now, let's turn to paragraph 36 of this</p> <p>15 same report and we're on Exhibit 1577.</p> <p>16 Now, Mr. Malackowski, you testified</p> <p>17 several times in response to Mr. Purcell that</p> <p>18 counterfactual analysis was inappropriate; is that</p> <p>19 correct?</p> <p>20 A. Yes, sir.</p> <p>21 Q. In this situation?</p> <p>22 A. Yes, sir.</p> <p>23 Q. What, in your analysis, is the difference</p> <p>24 between a but-for analysis and a counterfactual</p> <p>25 analysis?</p>	<p>Page 350</p> <p>1 synonymous with counterfactual analysis; is that</p> <p>2 correct?</p> <p>3 A. Well, again, to some extent</p> <p>4 counterfactual and but-for are, in my view, very</p> <p>5 similar, right. You're talking about something</p> <p>6 that could have happened instead of what happened.</p> <p>7 And the reference to Judge Grewal was to</p> <p>8 the nexus test, not the computation and</p> <p>9 apportionment of profits, which is consistent with</p> <p>10 what we said a moment ago, but I just didn't want</p> <p>11 to make any blanket statement that would confuse</p> <p>12 the record.</p> <p>13 But I look -- you look like I'm still</p> <p>14 confusing you.</p> <p>15 Q. Let's -- let's move on. In -- to</p> <p>16 paragraph 37.</p> <p>17 You use the phrase gating item there and</p> <p>18 you've defined for me what your interpretation of</p> <p>19 gating item is.</p> <p>20 In your opinion, is there an economic</p> <p>21 test for a gating item?</p> <p>22 A. I mean, the closest that I could suggest</p> <p>23 for you is the test that's discussed in, I think,</p> <p>24 Dr. Jaffe's report -- but also the technical</p> <p>25 report -- that the product issue would not operate</p>
<p>Page 351</p> <p>1 A. I frankly equate the two of those and</p> <p>2 note that the but-for analysis, counterfactual</p> <p>3 analysis is applicable for the assessment of lost</p> <p>4 profits, but not applicable in the disgorgement</p> <p>5 analysis.</p> <p>6 Q. So it's your opinion that the use of a</p> <p>7 but-for or counterfactual analysis is always</p> <p>8 inappropriate in estimating a disgorgement damage</p> <p>9 amount; is that right?</p> <p>10 A. Yes, sir.</p> <p>11 Q. Is it always inappropriate or is it just</p> <p>12 inappropriate in this case?</p> <p>13 A. Always.</p> <p>14 Q. Now, you've testified that gating -- I'm</p> <p>15 sorry.</p> <p>16 A. No, no, that's okay.</p> <p>17 Q. No, if you have an answer, go ahead.</p> <p>18 A. I mean, we could talk at some length</p> <p>19 today about we used the words but-for also in the</p> <p>20 context of Judge Grewal's decision. I didn't mean</p> <p>21 to leave that out. But -- but talking at a</p> <p>22 fundamental level of the damage calculation, not</p> <p>23 the nexus point.</p> <p>24 Q. But when Dr. -- when Judge Grewal used</p> <p>25 the but-for analysis, you understood that that was</p>	<p>Page 353</p> <p>1 without the copyrights, that they're a central --</p> <p>2 essential central to the product.</p> <p>3 Q. You said the product issue. Do you mean</p> <p>4 the product in issue?</p> <p>5 A. Yes.</p> <p>6 Q. Okay. Now, let's refer to paragraph 44.</p> <p>7 Now, in paragraph 44, you list a set of</p> <p>8 inherent limitations that render the Berry model</p> <p>9 inapplicable in this manner -- matter.</p> <p>10 My specific question is, is it your</p> <p>11 opinion that demand for smartphones is not well</p> <p>12 approximated by a static discrete choice model?</p> <p>13 A. That is my business understanding of the</p> <p>14 economic theory that is applied. I think in part</p> <p>15 by Dr. Berry's own admission or caveats to this</p> <p>16 paper.</p> <p>17 Q. Does that answer give you -- give us all</p> <p>18 of your basis for that opinion, or do you have</p> <p>19 further basis?</p> <p>20 A. The -- the additional basis that I would</p> <p>21 have, as a noneconomist business expert, is simply</p> <p>22 that I find that there are other variables</p> <p>23 impacting consumer choice interactively in this</p> <p>24 market that extend beyond what I understand to be</p> <p>25 the limitations of the Berry model.</p>

89 (Pages 350 - 353)

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Page 385

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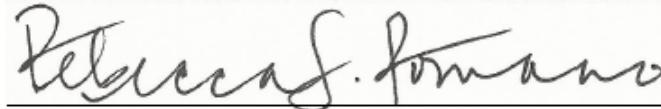
3 That the foregoing proceedings were taken before me
4 at the time and place herein set forth; that any
5 witnesses in the foregoing proceedings, prior to
6 testifying, were administered an oath; that a record of
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11 Further, that if the foregoing pertains to the
12 original transcript of a deposition in a Federal Case,
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